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AESTHETICS IN PUBLIC TRANSIT: A COMPARISON OF THREE TRANSIT
SUPPORTIVE AREAS IN TUCSON, ARIZONA ON THE PERCEPTIONS AND
ATTITUDES TOWARD PUBLIC ART IN PUBLIC TRANSIT FACILITIES

by

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A Thesis Submitted to the Faculty of the
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ABSTRACT

Mass transit can play a critical role in making communities more livable. To be effective public transit must be a positive element in a community. The Federal Transit Administration (FTA) encourages design excellence, including the use of public art in public transit facilities. While public art may be a viable strategy to creating pleasant and interesting places, public opinions and attitudes towards public art—as a design element—are relatively unknown. This research documents the effectiveness of public art in public transit improvement projects. Surveys addressing transit agencies nationwide and three transit-supportive areas in metropolitan Tucson were evaluated. Four public transit facility projects in Tucson are documented for future research on the effects of public art in public transit facilities. The project resulted in significantly different approaches by transit agencies nationwide, as well as a range of opinions on the functional and aesthetic attributes of public transit facility designs.

CHAPTER 1

INTRODUCTION

Public transit, like many other industries, is using new technologies to achieve improved efficiencies. Train cars reduce energy consumption by channeling unused electrical energy back into the third rail. Buses run on various fuels, such as compressed natural gas, methanol, or ethanol, to decrease air pollution. Passengers use magnetic fare cards, which improve access to trains and curb fare evasion (FTA 1996, 34). To provide the quality transit service necessary to attract new riders requires more than innovations in technology, passengers must feel comfortable and secure in transit facilities. The Federal Transit Administration's (FTA) current policy states, 'Good design and art can improve the appearance and safety of a facility, give vibrancy to its public spaces, and make patrons feel welcome. Good design and art will also contribute to the goal that transit facilities help to create livable communities' (FTA 1996, 34).

While mass transit can play a critical role in making communities more livable, transit has not always been welcomed by the public it seeks to serve. To be effective, transit services must be a positive force in neighborhoods and business districts. It is no surprise, then, that transit operators are increasingly concerned about the quality of bus stops, transit centers, and buses where people spend their time either waiting or riding. Artists can play a unique role in this search for quality in design in transit facilities. The FTA submits that, 'artists can add value to mass transit's primary goal of building

ridership' and encourages local transit agencies to pursue art and design excellence in their systems for these reasons (FTA 1996, 2). For those local transit agencies that have embraced the policy direction provided by the FTA, public artists—as designers—are challenged to define unique and interesting public places through transit.

Public artists can provide a unique design approach that can contribute to the development of interesting and pleasant environments at public transit facilities. Since the early 1980's, the federal government has promoted the use of public transit funding for the design and implementation of public art at public transit facilities (FTA 1996, 3). For over fifteen years, many transit agencies across the country have assisted in developing and refining art programs, using FTA funds, local public funds, and private dollars. Over the years, public transit facilities, such as bus stops and transit centers, have provided excellent opportunities for public art investments, adding value to mass transit's primary goal of building ridership (FTA 1996, 2).

Purpose of Study

It is widely believed that public artist and artworks can provide a foundation to rediscover a community's sense of place. As there is no formula to developing a sense of place, establishing real 'placemaking' can be complex and challenging. Artist's can become a valuable asset to a design process for projects with high public contact. Rather than simply solving a visual problem or making a place 'look' nice, ideally the artist reveals a different way of reading a site, which in turn activates or revitalizes the public spaces of a

community. Regardless of the obstacles, many believe that artists have a vital role to play in the development of new spaces and the revitalization or re-interpretation of established public sites, whether for transit or any other use. In a time when public life seems to be filled with conflict and social tensions rather than shared values and the common good, it is a daunting task to define what makes a public space meaningful.

Why This Information is Important

As transit agencies continue to invest in public art enhancements in public transit facilities, it is important that these agencies understand how best to utilize artists in the design and implementation process of major capital investment projects. Validating, or at least documenting, public opinions and attitudes on public art in public transit investments is important as public transit reasserts itself as an integral part of the urban fabric. By contributing to the information on the effects of public art on public transit and the response by the community towards this investment decision, local transit agencies and transit operators can develop strategies for appropriate uses of artists in design teams and public art in future transit capital improvement projects.

CHAPTER 2

LITERATURE REVIEW

Public Art In Transit

Limited empirical research has been published regarding the use of public art in public transit capital projects since the development of FTA Percent-For-Art policy in the early 1980's. Furthermore, research documenting public opinions and attitudes on public art investments for transit projects is almost nonexistent. While benefits of public art in public transit facilities are widely acknowledged in the literature as a unique design element, capable of capturing a sense of place and community ownership, documentation of public opinions and impacts on transit ridership have been generally disregarded.

The most valuable information reviewed for this thesis research comes from the Federal Transit Administration (FTA) 'Art In Transit...Making It Happen' publication produced in 1996. A second useful source of information is the nation-wide transit agency survey results compiled as a part of this study. This survey was aimed at determining the level of public art activity in public transit agencies and whether any formal research existed on the effects of public art in public transit projects over the last several years. These research sources suggest that, while a wide variety of communities have embraced the FTA policy to develop public art programs in transit projects, many other communities have expressed little interest in public art as a part of transit capital improvement projects.

The FTA 'Art In Transit...Making It Happen' publication sites a number of successful case studies of public art in transit projects nation-wide. For example, Seattle, Washington's King County Metro bus system has developed a simple way to incorporate public art in their ongoing bus shelter program. King County Metro has successfully made its bus shelters a more welcoming place to wait for a bus by giving local residents, school children, and artists a chance to design and paint their own bus shelter murals (FTA, 1996, 28). The success of bus shelter mural program, created in 1989, suggests that community-designed murals could build local ownership of public facilities and assist in reducing graffiti. The mural project produced over 425 murals in the first six years of the program, and more than 100 more are added each year. While researchers are only now beginning to study whether the murals have actually reduced graffiti, bus riders say they sense a change in the bus stop environments (FTA 1996, 29).

The FTA cites the recent public art investments by the City of Corpus Christi, Texas which has turned an ordinary bus transfer center into a key element of the Regional Transportation Authority's (RTA) public image and has become a vital agent in attracting riders. The local transit agency called on residents to help with the decorative tile art projects that are integral to the design of a new downtown transfer center and a second facility located in a largely Hispanic neighborhood. The result is a pair of welcoming, comfortable places to catch or change buses, a strong sense of community ownership of these important facilities in a growing transit system, and a healthy dose of good

publicity. The combined cost of the tile projects was \$45,000; the total cost for both stations was \$1.5 million (FTA, 1996).

As with the Corpus Christi project, San Francisco's Municipal Railway (Muni) public art element also focused on involving nearby residents in the development of a public transit project. The Muni project involved artists in a light-rail station rehabilitation project after the project became bogged down because of community opposition. The artists were able to break an impasse between residents, students and officials of nearby San Francisco State University who argued that Muni's poor track record in maintaining facilities and visual impacts of the new platform would be unacceptable (FTA 1996, 4).

Known for its innovations in planning, from urban growth boundaries to the successful downtown transit mall design, Portland, Oregon's Tri-Met, the regional transit agency, has been actively involving artists in the ongoing Westside MAX light-rail extension project. Portland has included artists in the development of sixteen sound barrier walls along the new Westside MAX light-rail extension projects. This inexpensive easy-to-administer project was viewed as 'likely to pay long-term dividends for Tri-Met' (FTA, 1996). The fence projects managed to build goodwill in a community adversely affected by transit construction and served to generate positive attention for the transit system. The paintings, scheduled to be in place for two years, outlived the construction projects

when local groups worked to find new sites for the paintings after the construction was completed (FTA, 1996).

Also of significant notice in public art in public transit accomplishments are the examples of Los Angeles, California's Green Line, Miami, Florida's Metrorail in Overtown, and St. Louis, Missouri's Metrolink. These projects have successfully engaged residents of lower income and ethnically diverse neighborhoods to become actively involved in the public art process at transit stops throughout their neighborhoods.

While Los Angeles is seemingly an unlikely place for a mass transit system, the regional bus system carries over a million riders a day while moving forward with a planned 80-mile, \$7.86 billion light and heavy rail network (FTA 1996, 10). Early community support of the art projects helped the agency raise money from local governments and businesses in the region. The series of art projects along the Green Line demonstrated that the closer architects, engineers, and artists work together throughout the entire design and construction process, the better. In spite of a late start, the artists influenced many components of the system, noting that a transit ride often marks an important transition in a person's day. The public art improvements to the Green Line stations have been warmly received and have become major tourist attractions in the area. Collaborative station design projects are now standard procedure as Metroline expands the rail system (FTA 1996, 10). In fact, the Metropolitan Transportation Authority is one of eight major

transit agencies nationwide that has developed a comprehensive public art program including a public art policy, and a separate department to administer the program (METRO, 1998).

Miami's Metrorail line, located above the neighborhood of Overtown, appears to cut the neighborhood from the rest of the community. But a colorful new pedestrian walkway, referred to as 'Colors of Renewal' (Thompson 1995, 38), is expected to introduce passengers at the local Metrorail station to a revitalized neighborhood, while celebrating the history of Overtown and the African Americans who settled it years ago (FTA, 1996 14).

St. Louis's Metrolink began planning a new light rail system in the mid-1980's using artists throughout the project development process. The issues facing the planners of Metrolink were to attract new riders who normally did not rely on public transportation, and to build a system that contributed aesthetically to the region. While initially interested in cost saving technologies, the MetroLink, Bi-State Agency was urged by civic leaders to include artists in the project. Bi-State brought in six teams of artists, hoping to attract riders by improving the design quality of the project. From the beginning, the artists established criteria that would inspire their work. 'MetroLink would grow from what is characteristic of St. Louis; it would be a whole set of related components, and it would be dynamic rather than static. 'The higher than expected

passenger loads (43,000 on weekdays, 45,000 on weekends, compared to projections of 12,000 a day) demonstrated that investment in good design can help attract riders' (FTA 1996, 22). As noted in *Passenger Transport Magazine* (May 1997), Bi-State's Art in Transit staff has coordinated with the Forum for Contemporary Art and the Washington University School of Art to establish a continuing collaborative art education program using public transit as the primary medium (PT, 1997).

In the Federal Highways Administration (FHWA) publication, 'More Than Asphalt, Concrete, and Steel', St. Louis's MetroLink has been recognized by the former Department of Transportation Secretary Federico Pena as 'the best new light rail system in the Country' (FHWA 1997, 42). The project received the St. Louis award for 'place-setting advancement in transportation,' the American Public Association's 1994 'Management Innovation Award,' and a special merit award in the 1995 DOT-National Endowment for the Arts 1995 'Design for Transportation' award competition (FHWA 1997, 42). The multi-faceted approach included recognition in the 'Arts in Transit' publication, noting that nationally known architects and artists involved in the project development have impacted the success of the rail and fixed route bus system.

In Tucson, Arizona, the regional governmental agency, the Pima Association of Governments (PAG), was recently documented as supporting public artworks in transportation projects. With the enactment of the federal transportation policy known as

the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, the federal government provided local and regional governments the opportunities to engage the public in the development of transportation projects. The ISTEA legislation of 1991 created the Transportation Enhancement Funding Category as a unique program to encourage community and neighborhood participation in transportation planning, design, and construction projects.

The Surface Transportation Policy Project's 'Five Years of Progress' notes the PAG's 'willingness to explore unique opportunities in the transportation planning process by involving disadvantaged youth to participate in a special summer course to design and construct a variety of projects incorporating public art into transportation' (Distefano 1996, 23). During the summer of 1995, PAG sponsored a unique program providing employment and training for 36 disadvantaged youths. The students' concepts and techniques differed from one location to another, and were aimed at humanizing the roadway system, enhancing urban gateway features, and defining the unique identity of individual communities. The project has been highly visible, focusing on developing social and community goals through public art in transportation (Distefano 1996, 23).

National Endowment For the Arts

In 1965, the National Endowment for the Arts (NEA) was created. At that time there were only a handful of ongoing public art programs in this country (Korza 1988). By

1988, there were at least 135 annually funded programs at the state and local levels with many more single projects undertaken by various communities. The first NEA matching grant of \$45,000 went to the city of Grand Rapids, Michigan in May of 1967, to commission a sculpture to serve as a focal point of the plaza which was central to a major redevelopment project (Korza 1988, 11).

Over the years the National Endowment for the Arts has been an active partner in providing matching funds to encourage and produce publicly funded artworks throughout the United States. As states and municipalities across the nation have established 'percent-for-art' programs, adopted to set-aside construction funds for the inclusion of public art investments, NEA grant funded artworks continue to make a significant impact on the cultural and artistic aspects of our communities. In the decades that followed, from the first grant award to the late 1980's, a significant shift in the emphasis of public art occurred. The early public artwork efforts focused primarily on studio works made monumental (for outdoor plazas) to be included in public improvements. As attention in public art developed, major public investment projects started funding artists to 'think in tandem with other members of interdisciplinary design teams—about how public spaces might function as more congenial, social places' (Korza 1988, 10). 'Public art projects began to range from dedicatory brass ensembles, street performances and events tied to lunch hour traffic, to significant public works projects making meaningful reflections on a community's values, cultural heritage, and traditions' (Korza 1988, 10).

Today, the increasing number of public art projects has provided artists, design professionals, administrators and the public with a growing realization of the potential for artists to be involved in a wide range of projects, including the planning, design and creation of artworks in public transit projects. Because of the growing complexities involved in public art programs, including more artists as design team members, or as

individually contracted members of a project development, a range of publications began to surface 'to guide' the development of public art as an industry unique unto its own. 'Going Public: A Field Guide to Developments in Art in Public Spaces' provides the overview and context needed to understand how a relatively new industry can impact quality design and public investments in public art. 'The most interesting projects (and programs) are formed from a clear understanding of the particular context, whether site or city, which then serves as the foundation for the meaningful involvement of artists in the building of public places' (Korza, 1988).

While the publication, 'Going Public,' is geared to assist public art administrators who are faced with coordinating ongoing, publicly funded public art programs, the intent is to provide artists with insights into the process of public art with an educative tool which provides an understanding of their own rights. Because public art fuses government, design, urban planning, development, and other fields, professionals in these groups also find the publication a source of information on current issues in public art today. The reality is that while an increasing number of innovative design projects are involving multi-disciplinary teams with artists and other professionals, such as engineers, architects and landscape architects who traditionally have not worked collaboratively with artists. Because of this, there are inherent challenges that individual design team members must overcome in order to achieve a qualitatively successful project involving public art as an integrated element in the overall design.

Aesthetics and Functionalism

A substantial publication produced in 1980 by the U. S. Department of Transportation entitled, 'Aesthetics in Transportation,' established a national perspective on the relationship of arts and design in transportation projects. This publication was the first effort by the Federal Highways Administration acknowledging the positive impacts that artists and design teams can provide on the nation's transportation system. This document was written by the architectural firm of Moore-Heder of Boston Massachusetts, and supported by Mags Harries, a nationally renowned artist. It led to a change in policy direction for federal highways and transit agencies and subsequently, local government's ability to incorporate public art as a meaningful element in transportation facilities. The document is divided into five sections covering art and transportation, facility design, integration with built environment, model procedures, and references (Heder 1980).

The document provides insights such as 'the Balinese, a people known for their richly decorated artifacts, respond when asked by Westerners, that they have no art, they simply make everything as beautiful as they can' (Heder 1980). In contrast, in American society, aesthetics have come to be regarded as a 'frill' which can only receive attention after all the important 'functional' requirements of a project have been met and which can always be added on afterwards like a coat of paint (Heder 1980).

Aesthetics, art, and design are concerned with beauty, defined as 'a quality that delights the senses or exalts the mind.' (Heder, 1980). Although some transportation facilities have accomplished an impression with soaring bridges and sweeping curves of freeway structures, unfortunately, the few examples of aesthetic quality are more the exception than the rule. In most cases, engineering designs, based on national standards established to minimize risks and liabilities and the sheer monumental scale of large transportation projects have resulted in the images we have for transportation projects built today. 'The daily journey through the city could be changed from what is now often viewed as a necessary ordeal into an exciting experience' (Heder 1980).

Improving the quality of life in a community depends, in part, on infrastructure investments and the preservation of a wide range of transportation choices (Giltstrap 1996, 1). Transportation, particularly transit, provides access to economic opportunities for many of its customers who may be limited otherwise, is critical to economic development, and protects the quality of life in our communities. Gilstrap argues in his article, 'The Changing Federal Role in Support of Public Transportation,' that a strong federal transit program has an important role in any vision of America's future.

While the focus of his article is on current fiscal trends in public transportation throughout the United States, Gilstrap argues that quality of life, access, and improved mobility through transit are closely related issues. The Federal investment in transit

infrastructure produces valuable assets in every community and long-term benefits for the nation. 'Transit also provides mobility and economic independence to millions of people each day and can contribute positively to the success of welfare reform' (Gilstrap 1997, 6). However, the investment in public transit comes at a cost to this nation. The national transit industry's capital funding requirements from 1995 through 2004 are \$13.9 billion per year. Capital needs include; modernization and rehabilitation of existing fixed rail and bus routes, stations, maintenance facilities, additional new facilities needed for customer demands and growth, new vehicles, and the rehabilitation of buses, rail cars, and other vehicles to extend their useful lives (Gilstrap 1997, 7).

Operating costs, including salaries, benefits, and administrative overhead costs for transit vehicle drivers, maintenance and operating personnel, and other 'soft' costs associated with the operation of a typical transit agency often exceeds that of the capital needs. Given the new reality of federal funding, cuts of nearly 12 percent in overall transit funding and almost 50 percent in operating assistance is forcing transit systems to raise fares and cut services in many parts of the country (Gilstrap 1997, 7). In an effort to secure public support of transit in the United States, quality transit investments must be met with innovative and creative funding solutions that reduce both capital and operating costs of our communities.

The City of Tucson transit agency (Sun Tran) is considered a moderately—sized and efficiently—operated transit system. Sun Tran serves a metropolitan area of nearly 800,000 inhabitants, many of whom are transit dependent. The Tucson community is generally a low-wage earning resort community with tourism, government, and the military serving as primary industries. During the 1996-97 fiscal year, the Sun Tran transit agency served 37 bus routes with a fixed-route bus fleet of 203 vehicles. The total Sun Tran capital budget for Fiscal Year 1996-97 was \$21 million with a \$22.5 million operating budget to support the services necessary to run a bus system of this size. In 1997, with over 55,000 daily trips, Sun Tran was ranked as the sixth most cost effective major transit system in the United States (SRTP 1997).

The City of Tucson 'Short Range Transit Plan' states, 'the metropolitan transit system is about people; people who live in the metropolitan area, who are transit dependent, who use public transit because it is more convenient and less costly, and who use public transit because it is good for the environment' (SRTP 1997). Based on this concept, the City of Tucson is committed to providing the public with usable and effective public transportation as a means of improving the quality of life in the community.

In 1997, the City of Tucson completed the 'Comprehensive Operational Analysis' (COA) to develop an understanding of the existing and potential transit markets within the community. The COA indicates that 'most people (88%) make their most frequent local

trips by car. The remaining 12% take the bus (6%), car-pool (2%), use a bicycle (2%), or use another method (usually walking)' (COA 1997, 23). The largest share of transit ridership in the metropolitan Tucson area occurs within the City of Tucson boundaries. However, significant numbers of high-potential riders are located in targeted growth areas—particularly the northwest and foothills areas of the City. Transit user research information indicates the existing rider market is made up of a relatively young age group. For instance, 44% of those who ride ten or more times per year fall into the 18-35 year old age set. Income levels of current Sun Tran riders tends to be below the metropolitan averages with 57% of riders earning incomes of \$19,000 (annually) or below. When compared with the overall community, the ethnic distribution of transit users are more likely to be Hispanic (24% compared to 16% for the entire sample) or African-American (8% compared to 3% for the entire sample). The largest identifiable ethnic/racial group currently using Sun Tran services are Caucasians—65% of the total Sun Tran market (COA 1997, 14).

The largest potential transit market user group ('discretionary' riders who may chose to use transit), are generally in the mid to higher income levels and are of Caucasian origin. This information will be useful as the City of Tucson transit agency develops new strategies to improve upon the market share of local transit users in the community.

Historical View: Tucson Public Art in Transportation

‘Public art enriches our environment and our lives. It engages our eyes, our minds and our spirits. It affirms our uniqueness as a community and clarifies the things that matter in our lives. It challenges our perceptions and educates our vision. It denotes public space, promotes dialogue and is memorable. Public art is a vital part of every dynamic community.’ (Poster 1993, 2)

The Federal Transit Administration (FTA) ‘Art in Transit. Making It Happen’ publication documents a range of transit agencies involved in public art investments in public transit projects, a number of other communities have also developed similar efforts with little publicity. While not mentioned in the FTA’s Art in Transit publication, the City of Tucson Department of Transportation and the Sun Tran transit agency have been members of the public art in public transit bandwagon since the late 1980’s.

During the mid-1980’s, transportation and urban growth issues were a focus of attention in Tucson, Arizona. Transportation (including public transit), air quality and community design were critical issues as urban sprawl development continued at an alarming pace. The Tucson community recognized the need to focus more on visual quality, urban design, community involvement, and integrated transportation and land use issues. In the wake of negative voter responses to major transportation proposals in the early 1980’s, a number of transportation efforts were developed to improve the visual quality of roadway designs. For the first time, roadway projects began to include landscape and urban design elements in their designs. In 1986, the City of Tucson adopted the ‘Scenic

Routes and Gateways’ ordinances and new ‘Roadway Development Policies’, a series of mitigation policies designed to improve the quality of roadways and minimize the adjacent impacts of new roadway construction (TDAC 1987, 1). As a part of this urban design effort, the Tucson Mayor and Council created a citizen-based Design Advisory Committee. The work of this Committee consisted of the formulation of general policies, procedures, and guidelines for the beautification and landscaping of selected rights-of-way within the City of Tucson. Included in the Committee’s policies was the recommendation of public areas as opportunities for the display of community works of art and enhancement of pedestrian and bus passenger environments (TDAC, 1997, 2). ‘The Design of Urban Transportation’ publication provided an early foundation for a significant paradigm shift in the City’s understanding and practice of street design. Prior to this effort, the design of the community’s transportation system was based on auto—dominated engineered solutions with little attention toward the development of a system centered on humanizing and aesthetic visual qualities within a roadway design. ‘Travelling our streets is the dominant means by which we experience our community. Well-designed streets should provide for the safe, smooth flow of all modes (of transportation) and can be a positive aesthetic experience for all. Because of the extent of public control, the design of our public rights-of-way represents the greatest continuing opportunity for quality development and public amenity’ (TDAC 1987, 13).

'The Design of Urban Transportation' identified specific design elements and policy recommendations for streetscapes, such as pedestrian amenities, street lighting, landscaping, and public art. 'Our streets are devoid of public art. Art should be incorporated into the public right-of-way at significant points to enhance the travel experience and create new community landmarks' (TDAC 1987, 14). The report argues that Tucson streets lack 'identifiable imagery, visual continuity, and clear variety.' 'Streets need a clear overall image that is identifiable, unique, and pleasant. The natural differences that occur in districts and neighborhoods are not reinforced with conscious design intent. Frontage development, land uses, names, numbering, landscaping and public art offer opportunities for distinguishing districts along our streets' (TDAC 1987, 14).

'The Design of Urban Transportation' states that development patterns along major street corridors have been formulated with a lack of clear vision of the relationship between physical elements, function, and community context. These development patterns have been 'conceived exclusively as automobile carriers. They are defined, designed, and are evaluated based on their automobile capacity.' In addition, the Committee states that public transit amenities such as bus stop locations 'are poorly designed and in no way provide for an attractive point of pick up and discharge' (TDAC 1987, 8).

In 1987, the Urban Design Advisory Committee recommended that the city should focus on 'more balanced transportation choices for its citizens and create a more attractive, livable city.' Acknowledging that 'contributions of other professionals can make to the design of Tucson's streets' (TDAC 1986, 10), a series of demonstration projects was advocated as a means to initiate a new direction in transportation development based on a commitment to create a more livable and attractive community. In great part, the development of the Urban Design Advisory Committee and the resulting documentation of policy recommendations altered the course of roadway development in the Tucson community.

Public Art in Transit – A Sense of Place

A fundamental question raised in this research effort focuses on the use of public art as an aesthetic design element in order to integrate public transit into the community's urban design. Can public art in public transit centers, bus stops, and railway stations create a sense of place in a community, and can this investment affect the attitudes and values of community members? Can public artists capture the essence of a community, express neighborhood qualities, or provide a sense of humor or intellect in an otherwise nondescript place geared toward functionalism and necessity? To the majority of a community's inhabitants, bus stops and transit centers are somewhat meaningless places. Yet as pedestrians, transit users, and motorists, we pass by these places along the public right-of-way everyday in our commute to work, school, and play.

In the early phases of urban public transit development, the transit rider's experience was not considered apart from transit service efficiency. Stagecoaches, cable cars, and early models of streetcars were low to the ground and open to the outdoors; they moved along city streets at slow speeds, offering riders a different sensory experience of their surroundings. 'Transit riders were integral to a city's streetlife, sharing with other people the buildings, parks, shops, and activities' (Cappe 1987, 292). Today, transit planning focuses on moving greater numbers at higher speeds in order to be effective. Yet special attention still must be paid to the quality of the rider's experience if public support is to be gained.

The public must consider public transportation an integral part of a community's design and structure if it is to be successful as a choice transportation mode. The intimate link that exists between street and city design has been the subject of many city plans throughout history. Pope Sixtus V's visionary designs for the streets of Rome changed the city's character during the sixteenth century (Bacon 1974). Haussmann's redesign of Paris and L'Enfant's plan of Washington D.C., created powerful networks of public spaces and buildings, connected by grand boulevards (Peets 1927, 1930). In North America, the City Beautiful Movement was another attempt to create sequences of formal spaces and vistas through the design of city streets and networks. (Cappe 1987, 290). In recent years, modern planners have downplayed the qualitative aspects of street design to concentrate of efficient traffic movement. In the 1950's and 1960's, during the 'golden

age' of the automobile, most streets were transformed into channels for vehicular traffic, with increased amounts of street space and public resources set aside for cars (Cappe 1987, 290).

The focus of the relatively short history of urban public transportation has gradually been narrowed to an obsession with efficiency. Passengers on old cable cars and streetcars used to be an integral part of the city's street life. Today, transit riders are tightly packed in large numbers and moved briskly from one place to the other. Run more as public utility companies, transit authorities in North America thrive on improving the speed and efficiency of their systems. Yet, a well-designed network of transit routes can improve the form and land use of the city itself, creating transit-oriented urban centers in neighborhoods, downtown districts, and even suburban centers. Transit vehicles can even serve as a form of animation on streets, including a range of street transit vehicle designs such as vintage streetcars, light and heavy rail trains (Cappe 1987, 20).

Transit networks feed a city by making urban centers accessible to many different kinds of people. While some people choose to ride transit instead of drive cars, those who cannot drive – the disabled, children, and those who cannot afford to drive – have no alternatives. Yet, transit riders comprise of a diverse group of people who are too often forgotten and disadvantaged. Interestingly, those who elect to take transit have the unique benefit of being exposed to a true cross section of a city' population.

Transit provides opportunities to develop urban places that can be designed in concert with a community's forms, textures, and spaces. Transit infrastructure, including bus stops, transit centers, and even transit vehicles are suitable venues for artists to capture the attention of the community. Yet places such as bus stops and transit vehicles have become just the intersection of two lines on a map, overlooked as quality opportunities to express a community's uniqueness. They are just another bus stop, just another street. Collectively, streets and public rights-of-way, comprise 30-40% of a community's land uses (Jacobs, 1987). The idea that by treating these places as opportunities for enrichment could begin to impact how we respond to our surroundings. The idea of people becoming responsible for, or connected to, places such as transit bus stops is an anachronism. Yet some believe that the attachment to places may be one of the most important-and neglected-needs of the 20th century' (Karasov 1996, 24).

Can public art foster a sense of place? Some believe that as people's lives become more entangled in a modern culture of consumption, they lose interest in values that developed during the industrial age: values like responsibility, which are based on a shared history and place. Can public artists be counted on to oppose a current market—oriented culture to express ideas and alternatives, or are artists too involved in market production themselves to develop alternatives? Can artists be useful in calling attention to the critical forces that disengage us from places? To a degree, the answers are 'yes'. This

research will focus on whether public transit is an appropriate forum for artist to begin a rediscovery process for a community or neighborhood's sense of value.

Current Research Survey on Public Art In Transit

As publication materials on community design theory and transportation and land use relationships are somewhat common place, literature centered on public opinion on art-in-transit investments is generally limited. In fact, public opinion surveys designed to analyze public art in transit development projects are almost nonexistent. Moreover, research efforts documenting transit ridership impacts resulting from public art investments in transit projects simply have not been pursued. Perhaps asking the question whether or not investments in public art and public transit projects can affect transit ridership is not the issue? After all, federal transit policy suggests that 'public art can add value to mass transit's primary goal of building ridership' (FTA 1996, 2). To accept that 'value' for one person is the same for another is probably wrong. The general consensus is that we inherently believe that public art can make public transit a better thing. The question is; do we all believe this to be true or do opinions vary depending on social and economic variables?

Pursuing these questions further, a series of questionnaires were developed as a part of this study and forwarded to a variety of transit agencies nationwide. The questionnaires were developed to determine comparative levels of public art in public transit investment

projects. A total of 30 surveys were developed into three survey categories. The categories included: 1) transit agencies published in the FTA, 'Art in Transit' publication, 2) communities that are actively participating in the FTA's *Livable Communities Initiative* (LCI), and 3) a series of regional communities having similar demographics or physical characteristics to the Tucson metropolitan area. Of the 30 questionnaires that were sent out, 20 were returned.

Findings of the literature search and the sample group of transit agency survey (including a review of public art in transit case studies) indicates that many transit agencies consider that public art (or artists) offer a positive element in the design of transit capital improvement projects. However, of the communities that are actively pursuing public art investments in transit projects, only three communities indicated a need to pursue formal follow-up analysis or counts to determine the cost-benefit and ridership effectiveness of the public art investments in public transit projects.

The survey research findings indicate the following observations:

- A number of communities and transit agencies have pursued public art enhancements in public transit capital improvement projects nationwide.
- There is a lack of post—project evaluation or analysis conducted by transit agencies on the effectiveness of public art in transit projects.
- There is a lack of quantifiable data documenting public opinions and perceptions of public art investments in public transit projects.

- There exists little, if any, research on the public response to public art in transit improvement projects based on varying market and demographic user groups to determine impacts on transit ridership.
- Transit agencies that have used public artist and artworks to improve the aesthetic qualities of the transit system agree that public art may reduce operational and maintenance cost, yet no formal benefit/cost analysis have been formally conducted to verify this understanding.

CHAPTER 3

CURRENT FEDERAL PUBLIC ART IN TRANSIT ACTIVITY

'Good design and art can improve the appearance and safety of a facility, give vibrancy to its public spaces, and make patrons feel welcome. Good design and art will also contribute to the goal that transit facilities help to create livable communities.' (FTA 1996, 35)

FTA Public Art Policy

Federal government support of public art in transportation projects is not a recent phenomenon. The Federal Transit Administration (FTA) has supported public art investments since 1981 with the adoption of the first policy statement advocating public art in transit projects, FTA Circular 9400.1, "Design and Art in Public Transportation" (FTA 1996, 35). In June 1995, the FTA adopted Circular 9400.1A, "Design and Art in Transit Projects," which in effect cancelled the previous FTA Circular 9400.1 (FTA 1996, 35).

The FTA Circular 9400.1A reaffirms that 'costs for design and art are eligible for FTA funded transit projects' (FTA 1996, 35). The policy also provides guidance for local public transit agencies to incorporate 'quality designs and art into transit projects' funded by FTA. In addition, within recommended parameters, the policy leaves the allocation of funds for art to the discretion of the local transit entity (FTA 1996, 35).

The policy Circular 9400.1A articulates the FTA's commitment to fund quality design and art in mass transit projects by allowing local agencies the discretion of developing the allocation of funds for these efforts within recommended parameters. As such, the FTA will fund the costs of design, fabrication, and installation of art that is part of a transit facility.

FTA Livable Communities Initiative

A 1994 study on 'The Effects of Land Use and Travel Demand Management Strategies on Commuting Behavior' identified several urban design characteristics that impact transit ridership choices. The study, conducted by Cambridge Systematics, indicated that a 4.1% increase in transit ridership could be achieved by developing 'aesthetically pleasing environments' at transit facilities. In contrast, other factors which also contribute to transit ridership choices include availability of convenience services (3.7% increase), mix of land uses (3.5% increase), accessibility of services (3.3% increase), and areas perceived as safe (1.8% increase) (FTA 1996, 4). This is research indicative of the Federal Transit Administration's Livable Communities Initiative.

Public transportation not only provides personal mobility, but can also contribute to the quality of life in communities. Metropolitan growth and resulting sprawl development patterns have led to increasingly longer commute trips, poor pedestrian access, traffic congestion, and adverse environmental impacts. These factors combined have

diminished the quality of life in many communities nationwide and are primary reasons for a reduction of effective and efficient operation of public transportation systems in our cities.

Research has shown that land use strategies involving mixed-use development with higher densities, suitable job/housing balance, and effective parking management policies can reduce auto trips as much as 18% (LCI 1996, 3). Furthermore, developments incorporating site design amenities, such as sidewalks, lighting, seats, and on-site services can increase transit ridership by 4% or more. As a result of a focused community approach to improving transit facilities, the Regional Transit Authority (RTA) in Corpus Christi, Texas has experienced a 6% increase in ridership on the routes served by transit centers, as well as a 19% increase in the systemwide ridership (LCI 1996, 3).

The FTA Livable Communities Initiative was created to demonstrate ways to improve the link between transit and communities. It promotes customer-friendly, community-oriented, and well-designed transit facilities and services. Common characteristics of community-sensitive transit facilities and services include: readily available customer information services; safe and secure facilities; sufficient access to transit, pedestrian, and bicycle transportation options; carefully managed parking; and attention to the values of community as reflected in the architecture of transit facilities (LCI 1996, 4).

The Livable Communities Initiative (LCI) program encourages transportation agencies and local governments to introduce transportation improvements in communities in the early stages of the planning process. 'When communities are afforded an opportunity for greater involvement in the decision-making process, the true objectives of a livable community are more likely to be accurately addressed and achieved' (LCI 1996, 4).

In 1996, under the Livable Communities Initiative, the FTA awarded funding to 16 projects that demonstrated the characteristics of community-sensitive transit.

Demonstration projects were selected based on criteria ranging from community involvement, economic development impacts, quality service, site design principles, system access, and travel demand. Site design principles included characteristics such as architectural compatibility, mix of land uses, public art, local master plan integration, and facility design integration. The result for each characteristic was considered as well. For instance, architectural compatibility may have resulted in a strong neighborhood or historical preservation response; public art may have resulted in an aesthetically pleasing environment, etc. (LCI 1996, 5).

A key element to the FTA's Livable Communities Initiative program is the desire to create innovative planning techniques that lead to designs which meet the communities needs. The expectations and needs of a community must be reflected in the design of each project. As a result, several communities developed town hall meetings to

exchange ideas for improving pedestrian and transit access and facility design concepts. Corpus Christi, Texas witnessed over 150 community participants in their town hall meetings to conduct a series of visual preference surveys of design options. The intent was to assess the relative values of the group and to begin establishing community priorities. Knowing the community's priorities helped define not only the access improvements but also the transit customer safety and security enhancements to be developed.

The Los Angeles Neighborhood Initiative (LANI) eight-neighborhood coalition is working with the Los Angeles County Metropolitan Transportation Authority (LACMTA) LCI project to make community recommended transit enhancements. This coalition is serving as a national model for community involvement in the planning and implementation of transportation improvements. LANI recognized the vital role of transportation to the economic, social, and environmental well-being of communities (LCI 1996, 19).

In the City of Tucson, the South Park Avenue Improvement LCI project was initiated to improve a low-income transit—dependant neighborhood through a trust building process to establish a relationship between residents and the city and transit agency staff. An innovative solution to the planning and design process involved a creative team of consultants that was comprised of a public artist team, as well as engineering and

landscape architectural professionals. As a result, over 60 handmade mosaic tile plaques have been created by neighborhood residents during the project development. The tileworks will be integrated into bus shelters and as free—standing ‘totems’ marking the history and cultural importance of the South Park Avenue neighborhood.

Conclusion

The review of current federal transit policy on public art and design suggests there is strong support at the federal level to include public art investments in public transit projects. Based on this policy direction and the number of examples nationwide of public art projects, we are able to begin to understand the benefits and costs of this design strategy. Issues related to long term maintenance, transit ridership impacts, and community responses towards public art become valid questions. To date, few transit agencies have indicated that any post evaluation has been conducted to validate the use of public art as an investment strategy. The following research will attempt to document a national transit agency view as well as general public opinions and attitudes from various transit supportive areas in Tucson Arizona to determine the value of public art in public transit improvement projects. This research will provide critical baseline information based on a sample of Tucson area transit capital improvement projects that include significant levels of public funding investments in public art as a part of each project.

CHAPTER 4

INFLUENCES OF PUBLIC ART AND PUBLIC TRANSIT IN TUCSON, ARIZONA

Historical Overview of Public Transit in Tucson, Arizona

In part, the development of public art in Tucson, Arizona has contributed an important design element in defining the cultural, traditional, historical, and contemporary images of this unique desert community. The design influences of this southwest urban metropolitan community are a culmination of natural, cultural and heritage influences ranging from prehistoric agricultural cultures to modern Hohokam settlement periods, Native American, Spanish-Mexican colonial, and Anglo cultures (Diehl 1997). The region's climate and topography, unique to the Sonoran desert, have provided opportunities guiding a continuous evolutionary pattern for its inhabitants since 1,200 BC (Diehl 1997). Artworks representing past and present cultures are treasured reminders of the peoples before us, as well as, who we are today.

While Tucson has been often referred to as the oldest continuously inhabited community in the United States, it is only since the turn of the century that the Tucson community began to evolve as an urban place. In fact, prior to arrival of the railroad in 1880, Tucson was little more than a small dusty pueblo of only 7,000 persons (Caywood 1980). The small outpost on the frontier desert was hardly ready to break into the public art

arena, let alone the public transit industry. With the exception of the inter—city railroad, mass transit services in Tucson were limited to horse-drawn carriages first operated by local resident Peter Herdic during the late 1880's (Caywood 1980). With the concentration of development in the central business district primarily along Congress Street and Meyer Street, there was really no need for transit in the City of Tucson until after the opening of the University of Arizona in the early 1890's. Mule drawn streetcars continued to operate until 1906 when electric power replaced the mules. With the advent of the electric streetcars in Tucson came the Tucson Rapid Transit Company, a name that lasted until 1967. For a period of time, both motor buses and streetcars were used concurrently in Tucson until 1930. After 1930, the electric streetcars no longer operated giving way to the modern motorized vehicles. Since 1930, mass transit in Tucson has been provided exclusively by motorized buses (Caywood, 1980).

Permanent bus service by the Tucson Rapid Transit Company was started in 1925 with two buses. Like many cities in the United States, the motor bus mass transit era in Tucson was marked with the advent of World War II. This time period caused the local bus fleet to expand by nearly 400 percent with over a 500 percent increase in passenger volumes (Caywood 1980). In 1969, the bus system ownership changed from private to public ownership by the City of Tucson providing the name Sun Tran as the transit system identity.

Today the Tucson metropolitan area surpasses 800,000 inhabitants. The City of Tucson owns and operates a Sun Tran bus fleet of 203 buses, operating seven days a week, providing transportation services to over 16 million passengers annually (COA 1997). For many Tucsonans, Sun Tran public transit services are their only available means of transportation. In 1994, a non-profit organization created the reemergence of an electric vintage trolley line called the Old Pueblo Trolley. The Old Pueblo Trolley currently operates a fixed rail vintage electric streetcar between the University of Arizona main campus, the Fourth Avenue shopping district, and the downtown central business and arts district today. The Old Pueblo Trolley operation serves a growing tourist market population in the community. The non-profit operation is expected to continue to expand the trolley service area by increasing the mileage of on-street rail and renovating additional vintage trolley cars as funding becomes available.

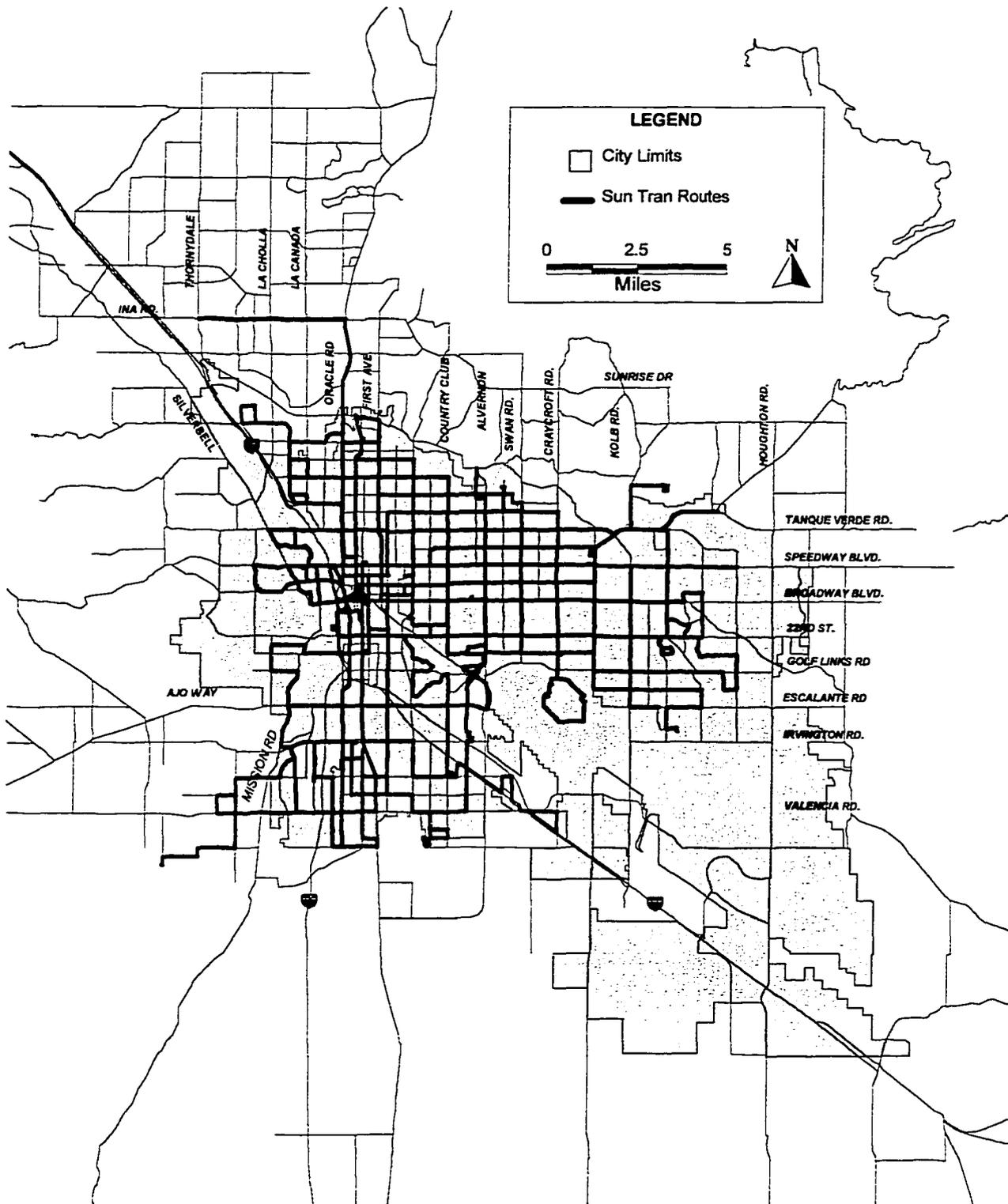


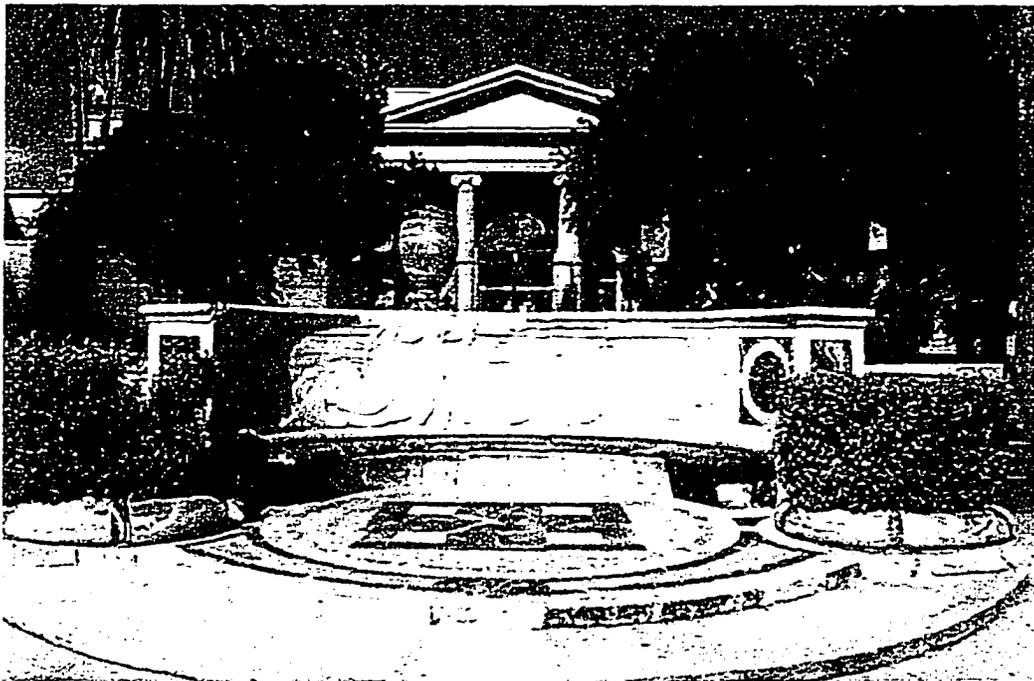
Figure 1: Sun Tran Fixed Route Transit Service Area, 1998

Development of Public Art in Tucson

At the time the Tucson Rapid Transit Company was in full operation with its electric streetcars, a local banker named Merrill Pingee Freeman was donating the first public artwork to the City of Tucson (Quinn 1987,15). Mr. Freeman gave \$11,000 to underwrite a project located in front of the Tucson (Carnegie) Public Library Building. The oldest public artwork in Tucson was dedicated in 1920 and was created by an American architect (Bernard Maybeck) and an Italian sculptor (Beniamino Bufano). The piece entitled, the 'Freeman Pioneer Memorial'; recognized those pioneers of Arizona 'who have given their lives that we may live in peace and unafraid in this sun-kist borderland' (Quinn, 1987). The sculpture represents a period Classic Revival Style, common of the time and the architectural period influences. At the time, the artwork, depicting half-clothed Greek figures, may have seemed oddly out of place in a young southwestern Sonoran desert community context. Even today, the 'Bufano Bench' catches the eye for a second look.

Public artworks of bronze relief's and sculptures were common in many communities during the early 1900's. These artworks often depicted memorials, historic events, significant cultural symbols, famous explorers, or war heroes of the time and place representative for many communities. In Tucson, the Father Eusebio Kino Memorial, a bronze relief plaque set in stone, is representative of the Spanish Missionary who traveled throughout Mexico and the Southwest during the late 1600's and early 1700's. Father

Kino is recognized by many as the modern explorer of the Santa Cruz River Valley where Tucson was settled. In many respects, Father Kino was responsible for influencing major change to this desert region. The Father Kino sculpture project started in 1920 as a privately funded sculpture to be centered in front of the old City Hall Building in downtown Tucson. School children and civic groups who organized the effort to create the artwork paid for the artwork. The memorial was completed in 1936 (Johnson, 1998).

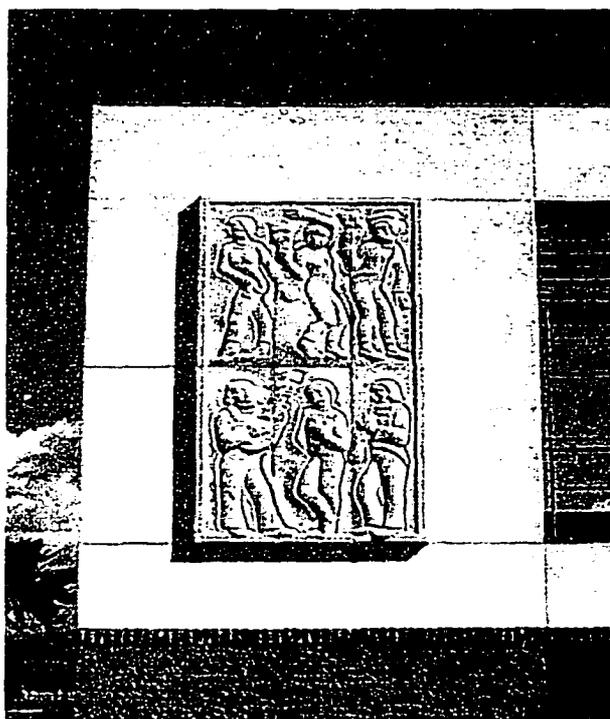


**Figure 2: Freeman Pioneer Memorial, Dedicated in 1920
Artist, Bernard Maybeck and Beniamino Bufano**

The 1960's were a profound period for public art in Tucson, as studio-trained artists began working with architects and landscape architects to create works of art for public plazas, fountains, and freestanding artworks. In Tucson, such artists as French-born, Charles Clements began influencing the local urban environment with cast concrete and mosaic tile abstracts. Clements is widely known for some of the earliest public artworks in public housing projects as he included his geometric abstract forms as freestanding benches, planters, and fountains. Clement's sculptures can be found incorporated into doors as mosaics or wall patterns, tile works, and unusually large-scale fountains, such as the El Presidio Park, located between the City Hall building and the Historic County Courthouse (Quinn 1987, 11).

The first City of Tucson funded public art projects came in 1985, when the Tucson Arts Council combined efforts with the City Manager's Office to raise funds for a sculpture by Derrill Flood for the Tucson Water Building. The project was interesting at the time because Tucson Water had been excluded from the 1984 Bond initiative for capital improvements citywide. At the same time the Tucson Water Department was in the middle of a highly—debated water controversy within the community. The artwork project was a temporary piece and did not go through an open artist selection process. The Flood artwork is no longer at the Water Building site.

The first public artwork commissioned and purchased by the City of Tucson 'Percent for Arts' Funds was a Parks and Recreation project resulting from the 1984 Bond Program. A raised relief stone sculpture entitled '*Celebrate the Arts*,' was created by husband and wife team Guillermo Esparza and Carole Hanson. This piece consists of six figures representing music, dance, drama, and, poetry. The artwork was purchased in 1986, and is located in the Reid Park band shell (Quinn 1987, 24). It is at this time, more than fifty years after the first public artwork is completed in Tucson, that public artists begin to effect a strong presence in the Tucson community.



**Figure 3: Celebrate the Arts; Reid Park
Artist; Carole Hanson/Guillermo Esparza, 1986**

In 1984, nationally renowned Tucson artist Barbara Grygutis prepared a report for the Tucson based Downtown Development Corporation; a City of Tucson supported economic development group. The report, entitled '*Art in Public Places: Master Plan for Downtown Tucson, Arizona,*' began the dialogue between community and arts activists, emphasizing the need to develop a sense of quality urban design and community image. In her report, Grygutis recommended that art forms for specific sites in downtown Tucson be included in future projects (Grygutis 1984).

In 1986, the Pima County 'Urban Design Commission' issued a report titled '*The Urban Design of the Tucson Basin,*' which recommended the use of art in urban design, especially in transportation and watercourses. One year later, in 1987, the Tucson Mayor and Council appointed a citizen-based advisory committee known as the 'Design Advisory Committee' to the City's Department of Transportation. The Design Advisory Committee met during an intensive period to critically and objectively analyze past and current development practices of roadways, streetscapes, and watercourses within the community. A final report, '*Design of Urban Transportation*' was compiled and made available to local policy makers for further action. This report furthered the argument that historic land uses and transportation development patterns within the Tucson metropolitan community had failed to address urban design and sense of place issues in the design of transportation systems, streets, and watercourse areas. The Advisory Committee recommended a series of transportation—related demonstration projects in

which specific recommendations should be followed including the incorporation of public art (TDAC 1987). Over the course of the next several years, the City of Tucson began to expand beyond the traditional framework for roadway and streetscape projects by inviting design teams comprised of multi-discipline professionals, including landscape architects and public artists.

Public Art Policy Development

In 1984 the Tucson/Pima Arts Council was created as a non-profit agency to promote the arts in the Tucson metropolitan area and Pima County. In 1986, the Public Art Committee of the Tucson/Pima Arts Council initiated an effort to inventory existing works of art in public places in Tucson. In 1987, the Tucson/Pima Arts Council published a *'Guide to Public Art In Tucson,'* documenting photographs and essays on selected artworks and an inventory of all Tucson public artworks to date. Over 100 public artworks were inventoried in the document including many artworks in the University of Arizona collection at the time (Quinn, 1987).

In 1989, the City of Tucson officially adopted a percent-for-art program with the creation of Administrative Directive 1.07-5. The purpose of the Administrative Directive, which is currently the adopted City of Tucson 'Percent for Art' Policy document, is to state the policies and procedures for the City of Tucson Public Art Program and assign responsibilities to the City and Tucson/Pima Arts Council (COT/AD 1992, 1). Since the

adoption of the present Percent-for-Art policy, a total of seventy-seven (77) public artworks have been initiated or completed through the Tucson-Pima Arts Council Public Art Program (TPAC 1998). In 1997, the Tucson/Pima County Arts Council completed a conservation survey report and maintenance plan of existing artworks in the City and University of Arizona's public art collection. The report, *'Long Range Maintenance Plan for Outdoor Sculpture and Other Outdoors Public Art'*, completed by Wharton and Griswold Associates, Inc., reports on conditions of individual artworks at 55 outdoor sites containing one or more works of art. The report also provided a maintenance plan on every work of public art with recommendations for repair and maintenance (Griswold, 1997).

Over the years, recommendations for public artworks have been included in other planning documents such as the *'Long Range Plan for the Tucson Convention Center,'* the *'Pima County River and Park Design Guidelines,'* *'Design and Development Strategies for the Tucson Arts District,'* and a public art study for the Tucson Airport Authority. Most recently, in 1994, the *'City Center Vision and Strategic Plan'* for downtown Tucson advocated and supported the need to expand the cultural, historical, and traditional values of the downtown Tucson community by encouraging public artwork investments.

'The principal mechanism for recent public funded artworks in metropolitan Tucson has been through the percent-for-art allocations in capital improvement projects of the City of Tucson and in Pima County' (Poster, 1992). While this is true, public art in the greater Tucson area has been broadly based, spearheaded by individuals and organizations concerned with the aesthetic and cultural aspects of the Tucson urban area. This level of organization and the continuous diligence of arts advocates are credited as being responsible for the positive contribution of public art in the last fifteen years (Poster, 1992).

In 1989, the City of Tucson expanded its Public Art Program, and welcomed a proposal for the Tucson Pima Arts Council to develop a 'Public Art Plan' for the metropolitan area. Then in 1990, Pima County adopted a broad public art policy with few specifics regarding its implementation (PACD 1993, 4). In 1998, the Pima County Board of Supervisors voted to revisit funding allocations to support public art investments. As a result of the City of Tucson's current Administrative Directive, establishing the City's percent-for-art program, the street development projects within the Department of Transportation have technically been excluded from the mandate to include public art in capital improvement projects. However, as documented, the City Department of Transportation and the Sun Tran transit agency have been actively participating in public art projects since 1989 with the Mountain Avenue Bicycle Pedestrian Demonstration Project and the Ronstadt Transit Center (COT, 1998).



**Figure 4: Mountain Avenue Demonstration Project,
Roger Asay Artist, 1993**

Public Art in Transit

As public art projects have expanded over the last decade, the public's awareness of the benefits of public artwork in the community has also increased. When asked why should the City of Tucson and the Sun Tran transit agency include public art in its capital improvement projects, David Hoyt Johnson, Tucson Pima Arts Council Public Art Coordinator, stated, public art is 'perceived as making transportation facilities more attractive.' The benefit/cost issues involve 'more to build effective facilities as opposed to just build efficient operations.' 'Public art in public transit facilities can provide a needed public relations approach to improve ridership benefits.' In addition, public art can improve upon the customer's comfort, which should be primary criteria, as important

as user safety and protection. By focusing on the aesthetic qualities of a transit facility, it is possible to reduce vandalism. 'Expectations should be developed as a result of artwork projects, yet the focus should be on the quality of artwork,' says Johnson.

'The attractiveness of a city is related to the vibrancy of the community.' As the concentration of higher quality begins to be emphasized, a higher standard of maintenance and operation will also be necessary. Johnson asks whether 'we are ready to accept that challenge of a higher standard to better our community?'

Public artists have engaged as collaborative team members with other design professionals (architects, engineers and landscape architects), as arts planners, designers, and creators of individual artworks. Artists have been involved in a range of projects, from interpretive signage, bus stop shelters, bicycle-pedestrian bridge projects, and mural and mosaic tile works to improve the quality of the community. Since 1985, nearly 77 public art projects have been completed or are currently in progress in the Tucson metropolitan area. In 1996-97 alone, there were thirty-five public art projects in various stages of development. Of these projects, nine were completed and dedicated during the 1996-97 fiscal year. Over the years, transportation and transit projects have been increasingly targeted as prime for public artist involvement. In 1996-97, the City of Tucson Department of Transportation maintained twelve different public artist contracts for various projects. Of these, six projects are directly related to Sun Tran transit capital

improvement projects (TPAC 1997,12). These projects illustrate the contributions that artists are increasingly making to the design and enhancement of the built environment. In many cases, the role of the artist goes beyond the making of objects for private consumption. Increasingly, artists are enhancing the urban landscape by helping to make public works more attractive. This broader role is what distinguishes 'public' artists from other artists (TPAC 1997, 10).

Since the development of the Tucson Pima Arts Council (TPAC) in 1985, the list of public art projects continues to develop with the assistance of the TPAC Public Artist Selection Program. Of the total 77 projects, 38 projects (49.3%) have been funded through various transportation agencies (i.e., City of Tucson, Pima County, and the Arizona Department of Transportation) in the metropolitan Tucson area. Projects range from roadway and drainage improvement projects, recreational and alternative modes, linear parks, transit enhancements, and interstate improvements. Over the years, artists have been included in team collaborations as a part of the planning and design process as well as during the installation and fabrication of artworks in transportation projects.

**Table 1: Metropolitan Tucson Transportation Public Art Projects
Total Funding Levels 1985-1998**

Agency	Funding	Number of Projects	Percent
Pima County	\$159,000	9	23%
ADOT	\$309,000	2	65%
City of Tucson	\$812,000	27	72%
Total Projects	\$1,280,000	38	100%

Source: City of Tucson: Department of Transportation

Of the twenty-seven (27) public art projects funded through the City of Tucson Department of Transportation, 12 projects (44%) have been public transit improvement projects. As public transit's function is to serve the public's transportation needs, maintaining high visibility and accessibility is a prime focus in order for transit to be successful. In this way, transit serves as an ideal venue for the inclusion of public art in that a goal of the public art program is to identify potential locations with high public contact as key public art destinations.

The following four case studies of public transit projects in Tucson Arizona have all included public artist and artworks in one form or another as a part of the project development. Each of the projects has approached the public art aspect differently than the next, and each project has achieved a level of success as a result of the art component of the project.

Downtown Ronstadt Transit Center

The first publicly funded artwork in a public transit improvement project in Tucson was completed in 1992. Initially, the downtown Ronstadt Transit Center, located in the heart of the downtown business and arts district, was not programmed to include public art in the project budget. The City Department of Transportation was concerned about the use of public funds for artworks indicating that federal funding restrictions would not allow such use. However, because of the transit center's location, the high visibility, pedestrian orientation, and persistency on the part of the Arts Council, the Department of Transportation was convinced to substitute the allocated \$13,000 budget specifying pre-manufactured tile with handmade ceramic tiles for the pedestrian promenade structure of the facility. Between the Arts Council and the City, an additional \$8,000 of matching funds was generated to create the custom tileworks for the project. With the newly allocated funding for public art, a total of \$21,000 was generated very late in the Design Development phase of the project as a way to include a public art component in the project. This budget estimate did not cover the final costs for the extensive tileworks for this project. After an open competitive public art selection process was conducted, local Tucsonan artist Melody Peters was contracted to create the handmade ceramic tiles.

The custom tile works are located along the pedestrian shade promenade that encircles the transit center facility creating a comfortable streetscape enhancement in the downtown area. The ceramic tile panels are framed with reused brick from prior merchant buildings

located in the same downtown city block. As a result, the once vibrant streets in downtown Tucson have again been captured through the revitalization efforts of the Arts Council and the City of Tucson with the development of the Ronstadt Transit Center.



**Figure 5: Ronstadt Transit Center Artwork,
Artist Melody Peters, 1992.**

Tohono Tadaï Transit Center

In 1994, the City of Tucson Transit Agency completed the third and most recent major transit center project for the Sun Tran Transit system. The Tohono Tadaï Transit Center supports passenger transfers in the northwest side of the transit service area. During the course of the development of this project, the transit center project was referred to as the '*Northwest Transit Center.*' As the project was nearing completion, the Citizens Transportation Advisory Committee (CTAC) forwarded a recommendation to name the transit center as the 'Bingham Transit Center.' This suggestion was in recognition of the early efforts by the Bingham family to provide transit services to the northwest part of the City. However, the Mayor and Council overturned that recommendation by suggesting that the new transit center name should respond to the region's Tohono O'odham (pronounced; TO-ho-no AW-aw-dam) Native American nation instead. Prior to the dedication in 1995, the transit center was named the Tohono Tadaï Transit Center, a Tohono O'odham name for the *desert roadrunner*.

The Tohono Tadaï Transit Center project public art element was approached much differently than the early Ronstadt Transit Center project. In this effort, the Tohono Tadaï project involved a team of artists in the planing and design process with two separate artist contracts addressed the construction and fabrication of artworks for the Center. The artist team of *Etc* (Paul Edwards and Chris Tanz) was selected in 1992 to work collaboratively with the designers of the project to develop appropriate locations for

future on-site public art improvements. In 1992, the *Etc* public art team was contracted with the City of Tucson to provide artist planning services (\$2,500). The *Etc* artist team identified play structures for children and banners as artist opportunities during the planning and design phase. The artists also considered a clocktower element as an art opportunity but the project architects wanted to develop this component as an architectural element instead. In addition, the artist planning team developed a design 'theme' for the project that the second artist selection process would respond to. The 'theme' created for the transit center was '*Urban Grid Meets Desert Landscape*,' referring to the urban growth patterns of the Tucson community and subsequent impacts on the natural desert environment. A TPAC competitive public artist selection process was conducted with final selections going to two teams of artists: Robert Vint/Dan and Mike Wilhelm/Elizabeth Pettit, developed the play structure element (\$40,000), and Chris Rush developed the banners concepts (\$8,000) (TPAC, 1997).

The Tohono Tadaí Transit Center public artist project is significant in that it documents the City Transportation Department's willingness to explore new innovative design processes involving team collaborations of artists, architects, engineers, and landscape architects. In addition, this project illustrates that early involvement of public artists during the planning and design process can be beneficial to the final outcome of the project. Because artists are inherently sensitive and visually cognizant of the surrounding environment in a much broader perspective than other design disciplines, public artists

can challenge other team members (engineers, architects and landscape architects) in the problem solving process.

The Tohono Tadaï Transit Center project, having high visibility among its patrons and the community, provides an excellent public art opportunity. This opportunity was addressed in a comprehensive manner through the planning and design process as well as through an understanding of the environment in which the transit center is located.

The following table illustrates the comparison of the three transit center facilities that support the current Sun Tran fixed route transit system. The Laos Transit Center facility was the first transit center constructed in 1987 and did not include a public art component in the facility design.

Table 2: Comparison of Existing Sun Tran Transit Centers

Transit Center	Acre	No. of Route	Est. Cost of Const.	No. of Bays	Year Built
Laos Transit Center	3.5	11 rts.	\$1.2M	14 Bays	1987
Ronstadt Transit Center	2.7	23 rts.	\$6.0M	13 Bays	1991
Tohono Tadaï Transit Center	3.53	8 rts	\$4.2M	12 Bays	1994

Source: City of Tucson, Department of Transportation



**Figure 6: Tohono Tada Transit Center
Public Art Play Structure; Bob Vint, Dan & Mike Wilhelm, Elizabeth Pettit**

The Downtown / University of Arizona Shuttle Project

The University of Arizona campus, located within a mile of the downtown Tucson central business and arts district, has a profound affect on the community's economic development and growth. The location of the University campus, combined with a strong student population base, can provide life and energy to neighborhoods, commercial areas, and entertainment districts in the urban Tucson area in a positive way. The central and downtown Tucson areas maintain strong markets that may support alternative transportation modes such as transit. Although public transit currently serves a significant number of trips in this segment of the City, public transit opportunities continue to be unfulfilled. For instance, presently lacking are direct and responsive services to and from the University of Arizona and the local community college

campuses to local area businesses and entertainment districts by transit. In addition, daily trips to classes on campus and other inter-modal connections supporting student travel needs could be better served by transit if marketed correctly.

The success of the Fourth Avenue entertainment district and the downtown business and arts district, with events such as the ‘Downtown Saturday Night,’ have infused an increased level of night and weekend activity in central Tucson. It is also widely understood that this activity is currently under—served by transit. With a student population of approximately 35,000 full-time students and another 15,000 faculty and staff, this potential transit market share in the community should be re-evaluated.

Because convenient, inexpensive, and accessible transit options are not available, auto trips continue to serve as the main transportation for this corridor. While economic and air quality benefits associated with the use of alternative modes and increased transit access have been at the heart of the need for stronger transit connections, transit services between the University and the downtown continues to be ineffective throughout this corridor.

In recent years, the local Tucson arts community has recognized the opportunity to develop a strong arts ‘theme’ associated with transit services in the Art’s District. The idea of integrating art with transit as a way to market public transit, is an ideal solution that could capture the interest of the University and arts district market. Since the mid

1980's, with the development of the Arts District and the Old Pueblo vintage electric trolley line, the University to downtown linkage is considered a unique opportunity for public art improvements.

In 1993, the City of Tucson initiated the 'Transit Linkage Study,' to identify primary transit linkages in the central urban area. A primary purpose of the study was to evaluate the transit linkages and strengthen connections between the University of Arizona and the downtown central business district. The study determined that The University of Arizona campus and the downtown business and arts districts could best be served by initiating a direct transit shuttle service that is marketed toward a specific user group. The Study reinforced the notion by recommending a new transit service based on frequency of service, low cost fares, and highly visible stops along the University Boulevard and Fourth Avenue Shopping District corridor. In addition, the service route would provide an integrated approach by including artist—designed and fabricated bus stops, artist—created signage, and marketing strategies to attract potential riders who normally may choose to drive their automobiles.

The 'Transit Linkage Study' established the groundwork for the 'Downtown / University of Arizona Shuttle (Route 200) Project.' The Route 200 Shuttle Project created an opportunity to involve public artists in the development of a transit service project designed to attract a range of transit users for shopping and entertainment purposes. In

addition, the tourism generated by the Old Pueblo electric vintage trolley line located along the same route would provide support for transit activities in the area.

With the completion of the 'Transit Linkage Study' in 1993, the design and construction project for the Downtown Shuttle Stop Project (Route 200) was initiated. The Downtown Shuttle Stop Project was created to improve up to 30 mid-block bus stops along University Boulevard, Fourth Avenue, and into the downtown business and arts district. A range of bus stops would include bus shelters, benches, trash receptacles, curb work, signage, and landscape improvements. Five of the 30 bus stops include newly—designed bus shelters replicating the architectural form used at the Ronstadt Transit Center which is located at the end of the line in the downtown central business district. Another five bus stop sites were predetermined and identified as artists' bus shelter stops. These sites were included in a competitive 'call-to-artists' coordinated through the TPAC. The project included five separate artists to design and fabricate functional artworks as bus shelters. Each of the five artists were selected through a competitive process and contracted with the City of Tucson in the amount of \$15,000 each to create artists—designed bus shelters as public artworks (COT, 1997).

As a part of the design process for the Route 200 Downtown Shuttle Stop Project, the City Department of Transportation contracted with a landscape architectural firm to design the 30 bus stops along the route. The contract included a public artist in the design



Figure 7: Downtown / University of Arizona Shuttle Stop

process to develop new signage included at all stops on the route. The Downtown Shuttle Project signage concept includes a steel tubing frame and cut metal artistic elements of the Sun Tran transit agency logo and an abstract impression of the history of transit of Tucson. The signage has a copper-plated finish to provide a final product representative of the early copper mining industries of the region.

Local Tucson artist Linda Haworth provided a conceptual design guideline manual, *'Downtown /University of Arizona Shuttle Stop Design Project'* as a tool for future artists submitting proposals for the Route 200 artist bus shelter project. The manual describes the purpose and goals of the artist shelter project, special transit shelter design considerations and requirements, such as the need for shade, customer protection, safety,

vandalism, and maintenance issues as well as concepts for public artist to consider in project development. The bus shelter manual was an extremely useful tool to assist interested artists in understanding that while bus shelters and bus stops can serve as unique streetscape and artistic opportunities, bus shelters must also serve as functional components of the urban environment. Bus shelters must respond to the needs of the transit patron, the disabled community, weather conditions, and transit operator's (bus drivers) needs. As important is that artist—created transit bus shelters must be cost effective as a long-term investment. Finally, the artworks were required to maintain the purpose of the project: to attract new transit riders and to integrate public transit as a part of a livable community environment.

Table 3: Downtown / University of Arizona Shuttle Stop Project

Project Element	Total Estimated Cost
Planning and Design	\$ 35,000
Public Artist Design (\$14,900)	
Construction	\$350,000
Public Art Component Construction	\$ 75,000
(5 Artist Contracts @ \$15,000ea.)	
Total Project Cost:	\$460,000

Source: City of Tucson, Department of Transportation

Results documenting public response or transit service improvements for the Downtown / University of Arizona Shuttle Stop Project have not been determined. The project construction phase, including the artist created shelters, were completed in April 1998.

In the past, transit service on the Downtown / University of Arizona Route 200 service route has been plagued with poor ridership and below average cost recovery ratios. Prior to the completion of the project, the Route 200 service route was considered as one of the least cost effective service routes within the Sun Tran system. The relative high cost per passenger mile has been attributed to inconsistent service and extended service route impacts resulting in infrequent headways. The service issues for the Route 200 Shuttle Service have been ongoing for the City of Tucson for several years. Transit planners generally agree that the market aspects of the service route has never been fully pursued as originally proposed in the 'Transit Linkage Study' of 1993. Until the frequency of service and fare structure of the Route 200 is restructured, the impacts of the capital public art investments for the service may never be fully understood.



**Figure 8: Downtown University of Arizona Shuttle Stop
Route 200; Artist, Bob Thompson, 1997**

South Park Avenue Improvement Project

In contrast to other public art in public transit projects in Tucson, the South Park Avenue Improvement Project case study was developed to include public artists early in the planning and design phase of the project as a way to develop active public participation by local area residents and businesses. The project was identified because of the need to improve access for pedestrians and transit users for residents and businesses of the South Park Avenue neighborhood.

In 1996, the City of Tucson Department of Transportation was awarded funding for the South Park Avenue Project, one of sixteen Federal Transit Administration ‘Livable

Communities Initiative Program' projects nationwide. The project includes pedestrian and transit improvements, streetscape and landscape enhancements, artist created mosaic tile works for bus shelters, totems markers, drainageway features, lighting, traffic signal improvements, and bike lanes.

As one of Tucson's earliest settled African-American neighborhoods, the South Park Avenue neighborhood is rich in history, culture, and heritage. Yet over the years the neighborhood and once—thriving business community have declined, giving way to graffiti and vandalism, gang activity, and violent crime in the area, leaving many vacant buildings to deteriorate. Over the years, the elders and long time residents of the area have witnessed an unwelcome change to their once peaceful neighborhood. In order for the South Park Avenue Improvement Project to be successful as a transit—friendly community, the City of Tucson needed to begin a rebuilding and sense of trust process with the residents who have learned over the years not to rely on the City for assistance.

In 1996, with the help of a collaborative team of artists, engineers, and landscape architects, a slow and methodical process was developed to begin a trust—building exercise. On a very individual basis, the project artist team began to break down existing barriers to initiate a meaningful design process. Over the course of time, the artist team began a dialogue with many of the residents who had lived on South Park Avenue for 30, 40, and 50 years. Being invited into their homes by the residents, the artist would listen

to stories and memories of what it was like to live on South Park Avenue so long ago.

The stories would eventually be translated into handmade mosaic tileworks created by the residents, the school children, young adults, and many of the elders of the community.

Table 4: LCI South Park Avenue Improvement Project

Project Element	Project Cost Estimate
Design	\$325,000
Construction	\$1,850,000
Public Art	\$225,000
Total	\$2,400,000

Source: City of Tucson, Department of Transportation

CHAPTER 5

SURVEY OF PUBLIC ART IN TRANSIT

Introduction

While quality design and aesthetics of public transit facilities may be acceptable to the public as a factor in attracting riders, little, if any empirical research has been conducted to further understand how public art can contribute to this goal. Current research indicates that a number of communities and transit agencies are actively pursuing public art in transit projects as a means to create stronger community identity and positive public support for transit improvements. Yet, evidence suggests that few of the transit agencies surveyed have pursued any post—evaluation analysis to determine the level of effectiveness of this investment strategy.

It is generally understood that the public's attitudes toward taxpayer—funded mass transportation varies significantly in this country. There are many who believe that public—funded transit is non-cost effective based on the perception that public transit is underutilized and is not considered a primary choice mode of transportation. In many parts of the country the public may acknowledge that subsidies for public transit are acceptable as transit provides a source of accessibility for individuals who may not be able to afford to own or drive a vehicle. Intuitively then, we may also believe that public

art investments in public transit projects may also have this same response, since these amenities are funded with public tax dollars.

To oversimplify the issue, public art is subjective in nature: one either likes an artwork or doesn't like the work. However, to the professional artists, artworks are intended to provide a response, positive or otherwise. Therefore public artworks should invoke a wide variety of opinions and responses. Artworks in public transit projects, funded through percent-for-art programs, are also intended to stimulate responses by the viewer and hopefully generate a sense of community pride and ownership of these facilities. It may then seem appropriate to suggest that the public's opinions and responses of the use of art as a tool for attracting ridership may vary by as many people, based on differing values, neighborhood attitudes, socio-economic conditions, and perhaps even cultural differences.

Research Questions

An analysis of existing literature, public art case studies, and transit policies suggests that there is limited quantitative documentation to support the statement that 'public art can add value to mass transit's primary goal of building ridership.' However, in reviewing the case studies nationwide, there exists a significant level of empirical or practical experience on the part of transit agencies that are involved in public art in public transit projects. How can public art provide to the Federal Transit Administration (FTA) goal that transit facilities help create a livable community? Can public art investments impact

public transit ridership? Does the general public support art investments in public transit projects? While there may be general agreement that public artists can provide a unique approach to the creation and development of interesting transit facility designs, it is relatively undefined as to ‘how’ and ‘why’ artists can help create a difference in the design of these places.

Possible Outcomes for this Study

Based on the information developed through the literature review, one can expect that the nationwide transit agency survey (Phase I) will acknowledge public art investments in public transit improvement projects as an acceptable method for building community pride and a sense of ownership in local transit facilities. The research may also suggest measurable cost savings in operation and maintenance can occur when transit agencies include the community in the development of public art in transit capital improvement projects. Cost savings related to graffiti abatement and vandalism may be a significant positive attribute. However, it is expected that the cost savings factor may be inconclusive and non-quantifiable because of a lack of post—project evaluations by transit agencies on public art projects.

Secondly, the outcomes of the public opinion and attitude survey (Phase II) may suggest a variety of opinions regarding public art in public transit facilities. In general, the outcomes will suggest that while public art is supported by the majority of the survey

respondents of this study, the respondents will agree that the functional design attributes of public transit facilities will be more important than the aesthetic aspects such as public art and landscape improvements. In this regard, there will be limited differences between the selected sample groups for this study.

Research Methodology

General Overview

This study includes two major survey instruments used to gather data for research purposes. Phase I of the study involved a nationwide survey of 32 transit agencies developed to focus on a variety of communities. This survey was developed to understand the level of participation of transit agencies who are actively working with public artists to enhance the aesthetic qualities of transit bus stops, transit centers, and light rail stations. A list of transit agencies was developed from the literature review to be included in a series of surveys designed to determine the level of public art activity in transit agencies throughout the United States. This phase of the research process was initiated with a series of telephone surveys followed by a written survey questionnaire, and finally a follow-up telephone survey.

The second phase (Phase II) of the study survey instrument focused on public opinions and attitudes on the subject of public art in public transit improvement projects. This survey method included three transit—supportive areas within the Tucson metropolitan

area. Each transit—supportive area was defined based on criteria that identified a broad cross—section of individuals. Criteria for the selection of the survey areas included household income levels, ethnic diversity, transit access and usage, home ownership, and other planning data.

The Phase II research instrument documented public opinions and attitudes towards public art in the design of public transit facilities. The survey instrument focused on the following questions:

- 1) Does the general public support a ‘percent for art’ program for public art investments in public transit facilities?
- 2) Will public opinions and attitudes on public art in public transit projects vary based on social, economic, and cultural differences of the selected survey areas of the study?
- 3) What environmental factors are important in the design of transit facilities that may affect transit ridership characteristics?

Generally, there is consensus that an efficient, cost—effective public transit system can improve individual access and mobility, economic vitality, and an improved quality of life for people living within a given community. With this in mind, the questions being addressed as a part of this research have focused on how public art can impact the

aesthetics of a transit system in contrast to the *functional* aspects of public transit facilities.

A final component of this research focuses on current City of Tucson practices of including public art investments in public transit projects. Since 1990, the City Department of Transportation has actively participated in the inclusion of public art investments with four major transit capital projects since 1992 (COT, 1997). The four public transit capital projects include two major transit centers and two transit corridors involving bus stop improvements. All four projects established a percent-for-art budget set aside for public art for the planning, design, and implementation of these transit projects. Each project approached the public art element differently with each meeting successes as well as challenges during the development process. The four case study projects include: the Ronstadt Transit Center, the Tohono Tadaí Transit Center, the Downtown / University of Arizona Shuttle Stop Project, and the South Park Avenue Improvement Project. Each of the projects was analyzed to understand the role of public artists and artwork for each project and the effectiveness and contribution that the art component provided. This phase of the research provides an overview of public art budget, as well as insights to formulating recommendations for consideration by the City of Tucson with future public art in transit projects.

Collectively, the surveys developed for this research study were designed to analyze the impacts of public art as a tool for creating quality design and aesthetic enhancements in public transit facilities. This research attempted to quantify the effects that public art in public transit has on community attitudes, its impacts on transit ridership, and whether any net positive effects are gained by including public art in transit improvement projects. For instance, can operational or maintenance cost savings be realized from artworks in transit projects? Is it possible that neighborhood pride and community ownership can be achieved through art projects in transit improvements? If so, what other benefits can be realized from public art investments? To date, transit agencies across the United States continue to improve the aesthetic qualities, including public art enhancements, in transit projects with little quantifiable reasons as to why.

The goal of this study is to explore both transit agency and public attitudes and perceptions on public art in public transit facilities. The results of this study will add to the existing research on the value and importance of aesthetics and quality design in public transit projects and the impacts that these investments may have on transit ridership, community values, and quality of life within a community. This research will also provide recommendations on effectiveness, cost savings, maintenance, and marketing and public relations for consideration of public art investments by the City of Tucson Department of Transportation and Sun Tran transit agency.

Description of Public Art Surveys: Phases I & II

PHASE I: Transit Agency Survey Instrument

Phase I of the study included a compilation of opinions from transit agencies nationwide on the effects of public art in public transit facilities. This survey effort focused on three criteria; 1) to document formal Percent for Art programs in public transit agencies within the sample group, 2) to determine whether or not any formal post—evaluation analysis has been conducted by transit agencies documenting public opinions and/or measuring results of ridership impacts, and 3) to determine if any cost savings in operations and maintenance have resulted from public art investments in transit projects. In addition, an open—ended question was asked of those transit agencies that are involved in public art to understand ‘why’ the agency elects to include public artworks and artists in public transit improvement projects.

This survey included 32 case study transit agencies nationwide that were selected from the following groups;

- 1) Transit Agencies represented by the Federal Transit Administration (FTA) ‘Public Art in Transit’ Publication (FTA, 1996).
- 2) Transit Agencies selected by the FTA as part of the ‘Livable Communities Initiative’ Program.
- 3) A sample of regional (southwestern United States) transit agencies with similar demographics as Tucson, Arizona.

The FTA 'Public Art In Transit' publication sample group survey included eight communities documented as being actively involved in promoting public art in public transit systems, whether fixed-route bus systems, light rail, or heavy rail systems. The second group, the FTA 'Livable Communities Initiative Program' sample, included 16 communities selected by the FTA as a pilot program designed to create livable communities through transit. These communities were selected by the FTA based on criteria established through the LCI program, placing a strong emphasis on the design and implementation of transit facilities in under-served and transit-dependent neighborhoods. The final sample group included eight selected transit agencies within the southwest United States that have similar populations, demographics, and transit operations as Tucson.

This phase of the research included a written questionnaire sent to a total of 32 transit agencies in the sample group. A follow-up phone survey to all transit agencies completed the survey findings.

1. Transit Agencies: FTA 'Public Art in Transit' Publication (1996).

The FTA 'Public Art in Transit' publication focuses on eight communities and transit agencies that are actively involved in the development of public art elements in their public transit systems, whether fixed-route bus systems, light rail, or heavy rail systems. The survey sample group included primarily larger transit operations serving large urban

metropolitan areas. Transit agencies and projects that fall into this category are highly visible projects with very high budgets for design and construction. The FTA 'Art In Transit' publication was developed as a positive public relations tool to illustrate the FTA's support for such investments.

Table 5: FTA 'Art In Transit' Sample Study Group

No	Community/Transit Agency	Survey Response
1	Pittsburgh, PA	No
2	Seattle, WA/King Co-METRO	Yes
3	Detroit, MI/Detroit Transportation Corporation	Yes
4	Dallas, TX/DART	Yes
5	Miami, FL	Yes
6	Boston, MA/Metro Boston Transit Authority	Yes
7	Portland, OR/TRI-MET	Yes
8	Buffalo, NY/NFTA	No

Source: FTA Art In Transit

2. Transit Agencies: FTA ‘Livable Communities Initiative’ (LCI) Program.

In 1996, the FTA identified 16 communities to participate in a pilot program referred to as the ‘Livable Communities Initiative’ (LCI) Program. The selected LCI Program includes transit agencies that are pursuing transit-oriented projects which integrate transit into the community by instilling a more livable environment through transit. Project’s range in scope from pedestrian access and customer service improvements, land acquisition, transit-oriented developments, facility improvements, to safety and security features. These projects were selected by the FTA based on criteria established through the LCI program, placing a strong emphasis in the design and implementation of transit facilities in under-served and transit-dependent neighborhoods.

The FTA LCI Program—funded projects are geared toward empowering neighborhoods and communities as a means of stimulating the social well-being of the area by improving access to transit, creating economic opportunities, and integrating land uses.

While all 16 LCI projects were included in the initial contact and written survey, not all of the selected LCI projects were oriented toward the use of public art improvements as a design consideration. As such, only seven of the LCI projects were included in the sample group list. The figure below identifies the complete list of LCI projects and those projects that were selected for further survey analysis.

Table 6: FTA Livable Communities Initiative Sample Study Group

No.	Project/Transit Agency	Project Type	Survey Response
1	Atlanta University Center/MARTA	Pedestrian Access	No
2	Baltimore Reisterstown Metro	Customer Service	N/A
3	Chester Transportation Center	Pedestrian Access Customer Service	N/A
4	Chicago Green Line	Pedestrian Access Safety Security	N/A
5	Clackamas County Sunnyside Village	Land Acquisition	N/A
6	Columbus Transit Service Center	Design	N/A
7	Corpus Christi Transit Center	Pedestrian Access	Yes
8	East Cleveland Windermere	Land Acquisition	N/A
9	Los Angeles Neighborhood Initiatives	Safety, Security Bus Shelters	No
10	Louisville Neighborhood Job Center	Building Acquisition	N/A
11	New York City Station Security	Safety, Security Enhancements	N/A
12	Oakland BART Fruitvale Station	Transit-Oriented Development	Yes
13	Rosslyn Metro Station Bus Bay	Facility Improvements	N/A
14	St. Louis Metrolink Wellston Station	Customer Service Enhancements	Yes
15	Tampa Ybor City Electric Trolley	Pedestrian Enhancements	Yes
16	Tucson South Park Avenue	Pedestrian Access	Yes

Source: Federal Transit Administration

3. Regional Transit Agency Survey Group

This sample group included eight selected transit agencies within southwest communities that have similar populations, demographics, and transit operations as Tucson. This sample group of transit agencies was selected based on regional proximity to Tucson, Arizona. This sample group included select communities from Arizona, California, Nevada, New Mexico, and Texas, based on population, transit service size, and general demographic representation.

Table 7: Regional Transit Agency Sample Study Group

	Community/Transit Agency	Survey Response
1	Phoenix, AZ/Phoenix Transit	Yes
2	Tempe, AZ/Public Works Dept.	Yes
3	Scottsdale, AZ/Transportation Dept.	Yes
4	San Diego, CA/SD Metro Transit	Yes
5	Las Vegas, NV/Citizen Area Transit	No
6	Albuquerque, NM/SunTran	Yes
7	Austin, TX/ Capital Metro	Yes
8	El Paso, TX/Sun Metro	Yes

PHASE I: Transit Agency Survey Results

1. 'Art In Transit' Survey Results

The survey response rate for the FTA Art In Transit Survey Group was generally high. Of the eight transit agencies in the sample group, all but two of the agencies responded to the final telephone survey. Figure 12 below identifies the questions used on the final telephone survey for transit agencies.

Table 8: Transit Agency Public Art Questionnaire

Agency	Contact	Title	Phone	Address
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1. Question: Do you have an ongoing art in transit program/project?	Yes/No
2. Question: Do you have a percent for art policy that supports public art investments in capital transit projects?	Yes/No
3. Question: If you have public art in transit projects, have you ever conducted follow-up research on public opinion or attitude surveys to determine the public's view on public art in transit?	Yes/No
4. Question: Have you conducted any follow-up counts to document increases in ridership that could be attributed to the project?	Yes/No
5. Question: Why does your agency include public art in transit projects?	
6. Question: Have you been able to document any cost savings in operations or maintenance attributable to the public art improvements?	Yes/No

As predicted, survey responses concluded that the majority (5 of 6 respondents) of the transit agencies in this sample group indicated they have current or ongoing public art in transit programs or public art in transit projects. Four of the six respondents indicated they have formal Percent for Art policy programs that includes the transit agency.

However, only Portland Tri-Met has conducted any follow-up research to determine public attitudes toward public art in transit projects. As a result of the recently completed section of the West-side Light Rail project, Portland's Tri-Met conducted a telephone survey in which two out of three respondents indicated support for the art policy. Those who opposed the policy indicated that the money used should be spent on improving the service.

Responses to Question No. 4, addressing ridership counts and possible affects attributed to public art projects, indicated no formal research had been conducted by any of the agencies. In addition, regarding documented costs savings on maintenance and operations, none of the transit agencies indicated any formal studies documenting measured cost savings. However, several of the respondents indicated that graffiti and vandalism at artwork locations had been reduced or eliminated completely. This response suggested that an impact on maintenance had resulted due to the inclusion of artwork in the transit system.

Finally, when asked ‘why’ the transit agency included public artist and artworks in the transit capital projects, the responses centered on community pride and a sense of ownership by its patrons. Statements such as: ‘provided a means for community involvement and pride in ownership,’ ‘desire for an attractive place for customers to wait,’ ‘promoted respect among patrons and the community,’ and ‘enlightened leadership and observed successes in other projects,’ were common.

2. FTA Livable Communities Initiative Program Survey Results

Of the seven LCI transit agencies that were selected for this research, five communities participated in the final telephone survey. Compared to the Art in Transit Sample Group, this response rate indicated that public art is an integral part in the project development. However, unlike the Art In Transit Sample Group, public art was not necessarily the primary component in the LCI project development, but may have been included for one reason or another. In fact, of the five agencies that responded to the survey, three indicated that public art had been included in the project. Yet only two of these respondents indicated that a formal percent for art program was in effect that may have directed the art component to be included in the project. Both Tampa Ybor City and Tucson’s South Park Avenue projects indicated that Percent for Art programs existed, while St.Louis’ Metrolink project indicated that all public art improvements are solely grant—funded. Survey responses also indicated that, with the exception of St. Louis, no formal follow-up research has been conducted to verify public opinions or public attitudes towards public art in transit projects. St. Louis’ Metrolink indicated that a telephone survey was

conducted after Phase I design of the Wellston Station had been completed. The survey results indicated high levels of public support with indications that more trips would be taken on public transit. In addition, as a result of this research, the City of Tucson included the South Park Avenue LCI project, as well as two other transit supportive areas in the community, in a written survey questionnaire to determine public opinions on public art in transit.

Because many of the LCI projects are ongoing or are in the Design Development phases of implementation, none of the five agencies indicated that any follow-up counts had been conducted or are planned to determine the relationship of rider impacts and capital improvements involving aesthetic enhancements or public art amenities. The City of Tucson South Park Avenue project has documented current boarding information for the fixed route transit service on South Park to be used for comparison purposes in the future. Similar to the Art In Transit survey response, the LCI respondents indicated that no formal analysis has been conducted to determine the direct impacts that public art has on operations and maintenance. Yet the respondents implied that graffiti at public art project sites is nonexistent, presumably because of the sense of community pride and type of artwork that has been incorporated into the project. For example, the Corpus Christi, Texas Regional Transit Authority (RTA) involved the entire community in the public art project by creating handmade ceramic tiles designed by children of local neighborhoods. The ceramic tiles are included in the LCI—funded transit center in downtown Corpus

Christi. The RTA acknowledged that no formal analysis has been conducted but that public art would continue to be used in future projects because of the positive response by the public.

The City of Tucson South Park Avenue project included an artist team to develop a 'Community Art Center' located in a store front at the project site. The Arts Center was created in order to make a ceramic mosaic tile production accessible to the community before installation of tile works was included in the project construction phase. These examples document that by actively embracing the public in the artwork process, the probability of cost savings in maintenance may be realized in the life of the project.

3. Regional Transit Agency Survey Results

Finally, for the Regional Community Survey Sample Group, a total of eight different communities or transit agencies were included in the final telephone survey instrument. Of the eight selected communities, seven responded to this survey effort. The Phoenix, Scottsdale, and Tempe, Arizona and Albuquerque, New Mexico respondents indicated that some level of formal public art program did currently exist and that transit agencies did respond to the formal programs. In addition, these agencies also indicated that percent for art programs were in effect, ranging from 1% to 1.5% programs, managed by public art commissions or cultural councils. On the other hand, the San Diego, California MTDB, Austin Capital Metro, and El Paso, Texas Sun Metro all indicated that no formal

art program currently existed for the agency and that no formal Percent for Art program mandated the agencies to include public artworks in capital transit projects.

Of the seven respondents surveyed, none of the regional community transit agencies indicated that any follow-up research has been conducted to date to determine public perception and attitudes regarding public art in public transit projects. In addition, no formal ridership counts or maintenance and operations analysis has been pursued to attempt to quantify the impacts of public art investments in transit projects. The cities of Tempe and Scottsdale, Arizona, who have actively pursued public art projects for transit centers and bus stops, did indicate that bus shelters have no graffiti problems. The City of Tempe commented that the artist—designed shelters actually have less ‘blank’ surfaces that may normally be targeted for graffiti, with the aesthetic design encouraging a stronger sense of ownership from the community. Yet no formal study had ever been conducted to verify this perception.

When asked ‘why’ the agency considered the use of public art in the design of capital transit improvements, most respondents again repeated the concepts that ‘community pride’ and ‘sense of ownership’ were primary reasons for this decision. The City of Tempe also suggested that ‘the aesthetic element of people’s environment is very important to a good quality of life.’ The City of Scottsdale, Arizona indicated that they

were 'leaders in the arts,' adding that public art can 'humanize the transit system' in the community.

The City of Tempe also indicated they were currently conducting a public art master plan for the community to ensure that artwork projects are coordinated in the overall development of the community. Public art projects, while supported by the community, are currently developed through an ad-hoc process. The City of Phoenix on the other hand, suggested that in the early 1990's, the city dictated that all capital projects include art, which is no longer, the case. Public art is integrated into transit projects as determined on an individual basis. Phoenix Transit also noted that the public artworks have, in the past, been vandalized at all locations.

PHASE I: Transit Agency Survey Conclusions

Of the 18 communities and transit agencies that responded to the telephone survey on public art and percent for art programs, the general observations include the following:

- The majority of transit agencies who were surveyed as a part of this research study agree that the inclusion of public artworks in public transit projects can provide positive benefits to the community by improving the environment of the transit facilities.

- Transit agencies believe that the design and operation of quality transit services in a community is one of the top five reasons for creating a better community. If transit systems are to be improved to achieve increases in transit ridership, both market conditions and economic conditions must be considered.
- The aesthetic qualities of a transit facility is as important in attracting new riders to the transit system as service efficiency and cost savings for its patrons. Communities and transit agencies are continually challenged to do more with less.
- As funding for transit operations continues to be a constraint to services, alternative resources will become critically important. Public artists can help provide that holistic view of a project to identify symptoms and issues in a community, possibly resulting in a renewed sense of community pride and sense of place. Transit agencies are beginning to realize the impacts that may result from a new perspective on the aesthetics of transit facilities. As much as any other aspect of community, the realm of public transit infrastructure can reflect the physical manifestation of a community while serving as a positive tool to capture potential market opportunity to increase transit ridership.

PHASE II: Community Survey Instrument

Background

This phase of the study explored public opinions, attitudes, and perceptions of public art in public transit projects. Specifically, do people of various socio-economic and demographic backgrounds necessarily share the same attitudes regarding public art in public transit improvement projects? By understanding the attitudes and opinions of a cross representation of the public from different neighborhoods, it is generally believed that transit agencies can better understand the public's needs, and, as a result, make wiser investment decisions to encourage more transit ridership. If the public sentiment for public art is stronger in one community than another, is it not appropriate to understand why this may be true and determine how to respond to future transit improvements. Aesthetic enhancements for transit stops and bus stations may be defined differently by many people. While public art may be highly supported by some individuals, there may be strong relationships to opinions and that of socio-economic conditions of a neighborhood. If a transit agency is to support a policy for percent-for-art, how and when is public art appropriate in a transit projects? Quality decision-making can be accomplished when a transit agency has a better understanding of the community's sense of value and desire for the type of aesthetic treatments that may be included in a transit project.

Finally, this study serves to provide a sense of awareness to the general public by providing a different way to look at transit. Public transportation does not have to have a stigma that only the poor or under—privileged can understand. Public transportation is intended and designed to serve everyone in a community. Because public transit has a high degree of visibility, transit projects can serve as an excellent venue for artists and designers to create interesting and functional places.

Introduction

The next phase of this research included a written survey questionnaire to a random sample of residents from three pre-selected transit supportive areas in Tucson, Arizona. These sample areas were selected based upon criteria ranging from varying socio-economic classifications and demographics, transit use characteristics, and cross representation of the community as a whole. The intent of this phase of the study was to determine how residents of a variety of backgrounds, income levels, and ethnic classifications, whether transit users or not, respond to the topic of public art and aesthetics in public transit improvement projects. The study evaluated perceptions and values of individuals on public transit in Tucson, culture and arts in the community, and the importance of function and aesthetics in public transit facilities as related to the use of public art in public transit improvement projects in the community.

The methods used to conduct the local community survey questionnaire focused upon selecting three sample areas representing a broad, diverse cross—section of the Tucson

community. Using information provided by the City of Tucson Planning Department and the Department of Transportation, three transit supportive areas were located within the existing fixed route transit service area. The three areas selected for this study were Mountain Avenue (Speedway Boulevard to Limberlost Road), Tanque Verde (Wrightston/Sabino Canyon vicinity), and South Park Avenue (18th Street to 36th Street). See page 103, Table 9: Demographic Distribution of Study Areas.

The survey was limited to a random sample of single family residences within the survey areas. The selected target areas were determined by evaluating the transit usage, income levels, ethnic diversity, education, and home ownership characteristics. The geographic distribution of the three sample groups selected was also important criteria in the selection process.

Development of the written questionnaire survey instrument for this phase of the study was guided by various sources, including input from Selena Barlow Public Transit Marketing Consultants, Sun Tran and City Transportation Planning staff, and The University of Arizona Communications Department. The questionnaire was pre-designed and tested prior to mailing to the selected participants. With revisions, the survey was finally translated into Spanish and forwarded to a total of 2,938 addresses equally distributed to the three sample areas.

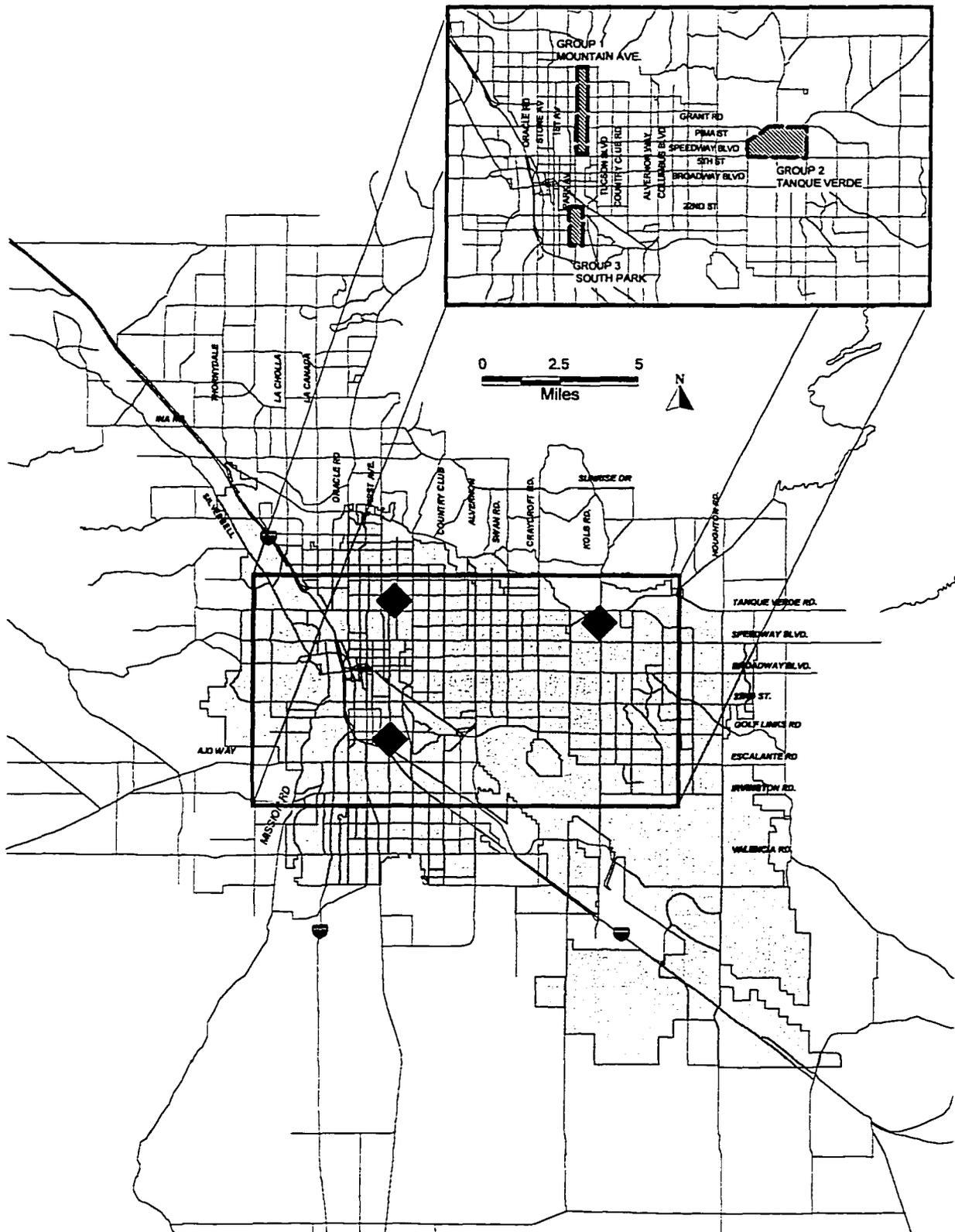


Figure 9: Community Public Perception Survey Areas

PHASE II: Description of Study Area Groups

The sample of transit—supportive areas selected for this research provides a comfortable cross—section of the Tucson community. In general, the three study areas were selected based on the criteria that each area is primarily a neighborhood, is currently served by the City of Tucson Sun Tran fixed route transit service and that each area is demographically different from the other. The following provides a general overview of each study area that was surveyed as a part of this study.

Group 1: Mountain Avenue (Speedway Boulevard to Limberlost Road)

The Mountain Avenue study area includes a 2.5-mile segment of the Mountain Avenue corridor from Speedway Boulevard to Limberlost Road. This selected survey area is comprised of a diverse midtown neighborhood area with primarily Anglo (80%) and Hispanic (15%) ethnic groups and income moderate levels (\$17,743 annually). Thirty percent (30%) of the population is considered at poverty level primarily because of the University student population of the area. The relatively high renter—occupied (55%) dwellings reaffirms the cross—representation of the study area. While Mountain Avenue itself does not have a fixed transit route on the corridor, the study area includes 5 different transit routes and 35 transit stops. The daily number of boardings on average for the study areas is 296.

Group 2: Tanque Verde Study Area

The Tanque Verde sample area was selected because of generally higher income levels (\$89,590) and ethnic makeup of primarily Anglo (83.3%) and Hispanic (12.4%) groups. In addition, this study area has a larger age group over the age of 65 (18%) than the other selected areas and a higher median household income (\$24,749) and a lower unemployment rate (1.5%) than the Mountain Avenue sample area. The Tanque Verde study area has six fixed route transit routes within the area, including an express and limited route service that is oriented for daily commute work trips. A total of 59 bus stops exist in the study area, with 924 average boardings per day.

Group 3: South Park Avenue Study Area

Located in mid town Tucson, approximately two miles from the downtown business district and one mile from the University of Arizona, the South Park Avenue neighborhood is known as one of the first African America neighborhoods in Tucson. This neighborhood area is mixed, with commercial, industrial and residential uses, although historically, the area was first established as a neighborhood filled with small home—cooking restaurants.

The South Park Avenue area has undergone dramatic changes over the years. The once—thriving neighborhood area has witnessed a significant decline in recent decades with underutilized commercial districts, vacant buildings, and generally higher crime rates.

Today, the South Park Avenue area maintains a lower than average income level (\$14,075) and a high percentage of minority ethnic groups (36.8% African American, 53.1% Hispanic). Based on the demographics, the South Park Avenue is regarded as more transit dependent, with 49.6% of persons as poverty levels, higher renter—occupied percentages, and greater percentages of female heads of households (18.6%). The South Park Avenue study area is rated ‘highest’ on the City of Tucson Stress Index, which considers crime activity and unemployment in the area. The study area includes three fixed route transit routes in the study area, with 85 bus stops and an average of 801 boardings each day.

The South Park Avenue area was also selected for this study because of the ongoing transit improvement project selected as a part of the FTA Livable Communities Initiative Program. In 1996, the FTA selected the City of Tucson South Park Avenue Improvement Project for LCI funding assistance. A total of \$1.75 million has been provided to improve transit facilities in the South Park Study area. This project includes significant public art components, transit stop enhancements, landscaping, street lights, and seating areas slated to improve the quality of the neighborhood area. These improvements have been designed with the involvement of the neighborhood residents in the design process as a pilot project to improve community pride and quality of life aspects of the area.

The design for the South Park Avenue Improvement Project has been completed and construction of the transit pedestrian and streetscape improvement is scheduled to begin in April, 1998. This project has undergone extensive public participation and community involvement throughout the planning and design process. Currently, the South Park Avenue Community Arts Center is underway for the project.

Table 9: Demographic Distribution of Study Areas

Demographic Type	Group 1 Mountain Ave	Group 2 Encino Verde	Group 3 South Park AVG
Percent Anglo	80.0%	83.2%	7.3%
Percent African-American	2.0%	2.1%	36.8%
Percent Native-American	1.2%	.3%	2.4%
Percent Hispanic	15.0%	12.4%	53.1%
Median Age	37.6%	39.8%	33.7%
Female Head House w/kids	52%	50%	18.6%
Persons per Household	2.12	1.75	3.42
H.S. Dropout Rate	59%	13.0%	47.8%
Unemployment Rate	0.06%	1.5%	19.3%
Median Household Income	\$17,743	\$24,749	\$14,075
Percent Persons in Poverty	30.9%	8.0%	49.6%
Owner Occupied Units	35.0%	51.0%	57.0%
Renter Occupied Units	55.0%	33.6%	36.1%
Vacant House Units	10.0%	15.0%	15.4%
Median Value House/Unit	\$63,595	\$89,590	\$42,267
Median Rent of House/Unit	\$860	\$426	\$237
Percent Pop. Over 65 Yrs.	1.0%	18.0%	11%
Percent Pop. Under 18 Yrs.	14.0%	8%	41%
COT Stress Index (1980)	Non-stress	Non-stress	High-stress

Source: City of Tucson Planning Department

PHASE II: Community Survey Predictions

The predicted outcome for the study considers that transit users in a given community are generally of one or two transit—user types. Transit patrons are typically either discretionary users—those transit users who ‘*choose*’ to rider the bus, or transit dependent users—those who may or may not own a vehicle, yet rely on transit as a primary source of transportation. Recognizing these users group types, the study predictions are based on whether or not the general sample group supports the use of public art as an aesthetic improvement in transit facilities. The study will also analyze the benefits, if any, that public art may provide to the local transit system.

In addition, the study results will determine the value of aesthetic enhancements in transit facilities in comparison to the functional aspects of facilities such as bus stops and transit centers. The functional aspects of these facilities include: visibility and access, shade structures and shelter from weather elements, lighting as a security measure, and other functional amenities, such as trash receptacles for maintaining a clean environment, signage, drinking fountains, restroom facilities, and advertising space. To many individuals who use public transit, the economic factors are the determining reason for using a transit system. Generally, the more cost—effective and time—efficient that public transit can be will determine if someone chooses to use transit as a means of transportation. In many cases, the aesthetics or unique design aspects as created by an

artist or artwork to a transit facility may be of little consequence or importance to these individuals.

A primary assumption of this study is that many of the survey respondents may have little knowledge or exposure to public art as an aesthetic enhancement to transit facilities. In this regard, the survey may provide a level of awareness to the opportunities for improving the city streetscapes and public infrastructure. A major prediction of this study is that few of the respondents will be familiar with the ideas of using public art in public transit improvement projects in the Tucson area. As a result, the survey instrument may serve to educate the public and to improve local transit public relations and market perspective.

For the purpose of this study, 'public art' is described as artworks or tangible art forms which may include, but not be limited to, drawings, prints, photographs, collages, paintings, mosaics, murals, fiber artworks, stained glass, relief or free-standing sculptures, fountains, arches, mobiles, and environments (TPAC, 1996). Public art is generally artwork that is within the public realm and is of high visibility. Public art can be funded using private or public funds, or can be donated artworks to a community's public art collection.

The study predicts that Group 3, the South Park Avenue sample area, as a lower income transit—supportive area, is generally more concerned with pedestrian access, mobility to and from jobs and school, and safety at transit facilities. As such, design issues affecting access, safety, and security at bus stops and transit centers may be more important to the respondents in the South Park Avenue area than the Mountain Avenue and Tanque Verde study areas. It is anticipated that many respondents of the South Park Avenue area will believe that public artwork can provide a sense of community pride and perhaps assist in reducing graffiti at bus stops. The most important improvement to the transit system would be through operational improvements. The study predicts that an increase in transit service, improved safety, and enhanced operations of the local transit service is more significant than aesthetic qualities and public art improvements. In addition, quality of life concerns based on jobs and safe neighborhoods will be more important to the South Park Avenue neighborhood area as this area has consistently ranked high as a stressed neighborhood with high crime rates, incidents of drug use, and unemployment. In this regard, this study area will be less likely to be concerned with the aesthetic quality of a bus stop or a transit center and more concerned about protection of the children, family well being, jobs, and access to inexpensive and frequent transit service.

In contrast, the moderate and higher income sample groups represent the ‘discretionary’ transit—use market. This group will include a mixture of college age students and working professionals who choose to use transit because of economics or environmental

reasons. The sample group will also include an older constituency with more conservative values, perhaps with a shorter average length of stay in the Tucson area. This sample group, while diverse in make-up, may maintain higher standards for transit services that centers around lower—cost and highly efficient transit service in order to continue to choose public transit as a choice mode of transportation. The prediction for the survey considers that the discretionary transit market group, while supportive of clean and accessible transit facilities, may not necessarily appreciate the aesthetic qualities of public art enhancements at transit facilities. The perceptive rational may be that the funding source for public art will impact the transit service and operational aspects which in turn will drive up the cost of the service. If service costs are too high, the discretionary user is less likely to use transit as a means of transportation.

The Mountain Avenue sample group may indicate a more liberal approach and represent support for public art in public transit facilities resulting from the younger age group. The sample group is also affected by the college—level influences due to the proximity of the University of Arizona campus. This sample group will generally support the arts and culture in the community and agree that public art can provide a means to reduce graffiti and vandalism at bus stops and transit centers.

PHASE II: Community Survey Results

Results of Survey

This section summarizes the responses to the individual questions and begins to offer explanations and draw inferences from the responses on the value of public art in public transit projects in Tucson, Arizona. Each question will be presented in the following general format:

The question

The objective or purpose of the question

Any hypothesis associated specifically with the question

A summary of the overall response

Responses by sample group area, including statistical analysis if applicable

Discussion of responses to the specific question

Overview of Survey Design

Section one (Questions #1- #9) of the survey instrument was general in nature to gain an understanding of the individual respondents' views on public transit, method of daily travel around town, attitudes on culture and the arts in the community, and general knowledge of public art. The question design for this section was a simple 'yes'/'no' response. The survey instrument questionnaire did not eliminate those respondents who do not use public transit. In fact, the purpose of the survey was to gather general

opinions and perceptions whether the respondent is a public transit user or not.

Regardless, each sample group response was evaluated whether the respondent supported public transit or not. As such, these questions were not subject to statistical analysis.

The responses to questions #10 – #35 were more specific in addressing value judgements on public art investments in public transit projects. This series of questions were subjected to statistical analysis to determine if any significant differences between the three sample groups were presented in the responses. The responses from the selected sample groups were compared with each other to determine differences in attitudes between the demographically diverse sample areas. Information on the statistical analysis is contained in the discussion of the specific question.

Questions #10 – #19 are designed to rate each transit facility feature by level of importance. The features are rated on a scale of 1 to 5 and include functional attributes, as well as aesthetic attributes of a typical public transit facility. Attributes such as shade and shelter, restrooms, landscaping, trashcans, drinking fountains, advertisement space, printed bus schedules, public art, bicycle racks, and lighting are included and compared in this section of the analysis.

Questions #20 – #29 also uses a 1 – 5 rating system in response to various statements related to maintenance and presentation of public transit facilities, the benefits of public

art, and whether public art can impact transit ridership. Questions 20-29 were developed to solicit an 'agree' or 'disagree' response.

Questions #30 – #35 identified six attributes of public transit facilities including, personal safety/security, function (are your needs served?), comfort, aesthetics (is the place attractive?), identity (is the place unique?), and access (can you get to the place?). These individual attributes were ranked among each other to determine the least and most important aspects. A statistical analysis of comparing mean scores between the sample areas was used to determine the level of importance between each group surveyed.

Questions #36 and #37 were included to understand the age and income aspects of each respondent. This information was used to cross reference those respondents who use public transit compared to those who do not and the resulting attitudes towards public art attributes and functional attributes of public transit facilities. This information was available to determine if those respondents who 'choose' to use public transit versus those in 'need' of public transit have differing opinions regarding functional and aesthetic qualities of the facilities in question. Finally, an opportunity was available for any respondent to provide additional comments. With the assistance of the Sun Tran agency, the survey form provided a small incentive to the respondents who completed and returned the questionnaire with two free bus passes. Fifty-five of the total respondents returned (670) accepted the incentive offer by requesting the free bus pass as offered.

Of the 2,938 surveys mailed, a total of 204 questionnaires were returned as undeliverable, leaving 2,734 surveys to reach the selected addressee. A total of 670 surveys were completed and returned for this phase of the study. Group 1: Mountain Avenue and Group 2: Tanque Verde reported the highest response rates (42.0% and 43.5% respectively), whereas Group 2: South Park Avenue, reported only a 14.5% response rate. A total survey response rate of 24% has been calculated for this study.

Table 10: Public Art In Transit Community Survey Return Frequencies

Area	Group 1 Mountain Ave.	Group 2 Tanque Verde	Group 3 South Park Ave.
No. of Surveys Mailed	1,000	938	1,000
No. of Surveys Returned	37	32	145
Total No. of Surveys Sent	963	906	865
No. of Surveys Returned	281	291	97
Percent Return	42.0%	43.5%	14.5%

Question 1: Have you used public transit in Tucson? Yes/No

This question served to gain an overall understanding of the level of interest in the survey project whether public transit users or not. In that the survey instrument was initially a comparison between various transit-supportive areas in the community, it was important to determine how many of the respondents are actually familiar with the local transit system.

The overall expectation of the survey results estimated that perhaps half of the respondents would be familiar with Sun Tran services. The actual survey results indicated a total of 68.0% (435) of the respondents acknowledged they had used public transit in Tucson. A total of 32.0% (205) indicated they had not used transit at all. 29 respondents did not answer the question. The results of the survey were summarized based on total transit usage. This information was not summarized based on individual sample groups.

The relatively high number (68.0%) of respondents who indicate they had used public transit in Tucson was positive in that having familiarity with transit operations would suggest an overall stronger objective response by the survey group.

Question 2: If yes, how often do you use the bus system?

Daily 2-3 Times Weekly Once a Week Only Once/Twice Occasionally

Determining the frequency of transit use is useful as a way to understand the level of knowledge that the survey respondents have towards public transit in Tucson. This information is helpful to distinguish 'occasional' users and 'daily' transit commuters. In general, the 'discretionary' transit user is making a choice to use public transit. The choice is usually determined based on cost and efficiency factors. If cost-savings are realized by using public transit to commute to work or school, the discretionary transit

users may continue to 'choose' public transit as a way to travel. It is generally recognized that lower income areas are more reliant on public transit and therefore are not discretionary transit users. The attitudes and values between dependent transit users and discretionary users may be of significance for this study. As such, in determining a difference in transit user frequency, the data analysis can determine value differences between transit user types.

Of the respondents, 6.3% (28) indicated they use the transit system on a daily basis, 4.3% (19) indicated '2-3 Times a Week,' 3.8% (17) had used the bus system 'Once,' 11.2% (50) 'Once/ Twice,' and 74.5% (333) indicated 'Occasionally.' There were 222 missing answers to this question.

Although the 'Daily' frequency factor was a low response rate (4.3%), the fact that a healthy group of respondents is familiar with general transit operations is considered good for the purposes of this study. No further analysis was conducted to compare the three sample groups selected for this study.

Question 3: Do you use the public transit system by choice, or is transit your only way to get around town?

By choice Only way Other

Of the respondents, 75.3% (336) indicated that they use transit by choice and are considered discretionary transit users. 10.1% (45) respondents indicated transit was their 'Only way' of travel around town, (14.6%) 65 indicate 'Other', and 223 surveys were unanswered.

Although 74.5% of the respondents indicated they used Sun Tran 'occasionally,' a relatively high response rate of those 'choice' riders (75.3%) was evident. This would presume that the 'occasional' Sun Tran user is doing so by choice. In contrast, those individuals who are generally dependent on public transit would most likely indicate a higher frequency of transit use. A summary of questions #1- #3 indicates that the majority of the respondents are less likely to be dependant on public transit and more likely to use transit as a matter of choice for various reasons. This factor may impact the overall findings of whether public art in public transit facilities is appropriate or not.

General Responses (Questions #4- #9)

The following section included six questions developed in a 'yes'/'no' response format.

The questions were designed to gain an understanding of the respondent's attitudes towards public transit services in Tucson, culture and the arts, and the level of familiarity

with public art in recent local transit projects. The purpose of this series of questions was to identify general opinions and to compare the results of the three sample groups. The contrast between the sample groups will provide the values of sample groups on responses to the 'functional' and 'aesthetic' attributes of public transit facility designs. The following information identifies the individual questions, provides a summary of the responses, and includes a follow-up discussion of the responses.

Question #4: Do you believe public transit is good for our community? Yes/No

Summary of responses to question #4:

Sample Group	Response	%	Response	%	Missing
Group 1:	278 (Y)	98.9	3(N)	1.1	0
Group 2:	286 (Y)	96.3	2(N)	0.7	3
Group 3:	95 (Y)	97.9	1(N)	1.0	1
Total:	659 (Y)	98.5	6(N)	0.9	4

Question #5: Do you believe public transit in Tucson is safe? Yes/No

Summary of responses to question #5:

Sample Group	Response	%	Response	%	Missing
Group 1:	253	90.0	9	3.2	19
Group 2:	255	87.6	14	4.8	22
Group 3:	85	87.6	10	10.3	2
Total:	593	88.6	33	4.9	43

Question #6: Do you believe public transit in Tucson is cost effective? Yes/No

Sample Group	Response	%	Response	%	Missing
Group 1:	174	61.9	52	18.5	55
Group 2:	183	62.9	49	16.8	59
Group 3:	71	73.2	13	13.4	13
Total:	428	64.0	114	17.0	127

Question #7: Do you believe public transit in Tucson is reliable? Yes/No

Sample Group	Response	%	Response	%	Missing
Group 1:	186	66.2	50	17.8	45
Group 2:	218	74.9	29	10.0	44
Group 3:	72	74.2	15	15.5	10
Total:	476	71.2	94	14.1	99

Question #8: Do you believe culture and arts are important in Tucson? Yes/No

Sample Group	Response	%	Response	%	Missing
Group 1:	249	88.6	28	10.0	4
Group 2:	250	85.9	24	8.2	17
Group 3:	80	82.5	13	13.4	4
Total:	579	86.5	65	9.7	25

Question #9: Have you seen artwork at a transit facility in Tucson? Yes/No

Sample Group	Response	%	Response	%	Missing
Group 1:	140	49.8	136	48.4	5
Group 2:	119	40.9	164	56.4	8
Group 3:	47	48.5	46	47.4	4
Total:	306	45.7	346	51.7	17

Of particular noteworthy interest is the higher than expected response rate in support of public transit in the community (98.5%), as well as the strong support for culture and the arts in the community (86.5%). In addition, of note is the less than expected response on the perceptions of cost effectiveness of public transit (64.0%) and reliability of public transit (71.2%) in Tucson. However, not surprisingly, was the high number of respondents who indicated they had *not* seen public artwork at a transit facility in Tucson (45.7%).

When comparing the responses between the selected sample groups, overall, there was relatively few differences for each of the questions. Interestingly, the Mountain Avenue (Group 1) indicated a lower response rate supporting the statements on public transit reliability and cost effectiveness when compared to the other two groups. Yet Group 1 had a higher response rate supporting the statement on the 'culture and arts' overall. With the Tanque Verde (Group 2) respondents, fewer people indicated they had seen public artwork at a public transit facility. The low response rate makes sense since the transit users in Group 2 are more likely to be express bus service users having limited or no transfers at transit centers where public art currently exists.

Aesthetics vs. Functionalism in Public Transit Facilities

Questions #10 - #19 were designed to rate individual design attributes of public transit facilities in Tucson. . The design attributes were rated individually (1: least important, 5: most important) for frequency and then compared among the three sample groups selected for this study. The physical design attributes ranged from functional to aesthetic qualities. The ten design attributes identified for this study corresponded with Questions #10 - #19. They are: 10.) Shade/shelter, 11.) Restroom facilities, 12.) Landscaping, 13.) Trashcans, 14.) Drinking Fountains, 15.) Advertisement space, 16.) Printed bus schedules, 17.) Public art, 18.) Bicycle racks, and 19.) Lighting.

The purpose of this section of the survey questionnaire was to determine the relationship between 'aesthetic' and 'functional' attributes based on importance. Secondly, this

section of the questionnaire allows the attributes to be compared between each sample group area. Using a simple statistical frequency test, the contrast between various attributes and sample groups was analyzed to determine opinions on the functional and aesthetic aspects of transit facility design. The question being addressed is whether one sample group significantly supports one attribute over another while verifying the level of importance for each attribute.

The results of the rating of design attributes identified those 'aesthetic' qualities (#12, landscaping and #17, public art) separately from the 'functional' attributes (#10, shade/shelter, #11, restrooms, #13, trashcans, #14, drinking fountains, #15, advertisement space, #16, printed bus schedules, #18, bicycle racks, and #19, lighting). A standard statistical *F-test* was used to determine the level of frequency among the 'aesthetic' and 'functional' attributes. A second statistical analysis (*t-test*) was applied to compare the responses of the three sample groups selected for the study.

The results of *F-test* for the 'functional' design attributes of public transit facilities resulted in a mean score of 3.72 (Group 1), 3.72 (Group 2), and 3.89 (Group 3) ($F(2,661) = 2.00, p = .136$). This is based on a 1 to 5 rating from least important to most important. The *F-test* results indicates a lower than desired probability of significance ($p =$ probability ideally should be less than .05%). The *F-test* does however, reflect high average mean scores ranging from 3.72 to 3.89, indicating the importance of the functional aspects of public transit facilities by all three sample groups.

A standard *t-test* was then applied to determine the level of contrast between each sample group. This test indicated an acceptable degree of probability of significance in the findings ($t(659) = 2.00, p = .046$). The results verified little variance between the three sample groups on the importance of the functional design attributes at bus stops and transit centers.

The next step was to determine the mean scores for the 'aesthetic' attributes (#12, landscaping and #17, public art) and then to compare the results between each of the three sample groups as before. Using the same standard *F-test*, the mean scores were 3.07 (Group 1), 2.88 (Group 2), and 3.14 (Group 3) ($F(2, 656) = 3.12, p = .045$). As with the functional attributes, the aesthetic attributes were rating based on 1 to 5 (5 being most important). In this analysis, the results indicated an acceptable probability of significance and generally lower mean scores when compared to the functional mean scores.

Finally, the standard *t-test* was used to determine the contrast between the selected sample groups. In the case of the 'aesthetic' attributes, the *t-test* indicated a significant difference between Groups 1 (3.07) and 3 (3.14), and that of Group 2 (2.88) ($t(654) = 2.47, p = .014$).

In summary, respondents of the survey generally believe that both the ‘functional’ and ‘aesthetic’ design attributes of public transit facilities are important. However, the overall mean scores of the combined sample groups for ‘functional’ attributes was significantly higher than the overall mean scores of the ‘aesthetic’ attributes (functional: 3.75 / aesthetic: 3.00). When comparing the individual sample groups on ‘functional’ attributes, there appeared to be little or no significant difference between Group 1, 2, and 3 responses. On the other hand, the results for the ‘aesthetic’ attributes (landscaping and public art) indicated a statistically significant difference between Groups 1 and 3, and that of Group 2. Overall, Group 2 (Tanque Verde) tended to be less supportive of the ‘aesthetic’ attributes, such as landscaping and public art, than the other two groups.

Overall Findings Functional/Aesthetic Attributes (Q. 10-19)

1 least important –5 most important

No. Attribute	Group 1	Group 2	Group 3	Total
10. Shade/Shelter	4.47	4.51	4.54	4.50
11. Restrooms	3.23	3.34	3.72	3.35
12. Landscaping	3.16	3.00	3.15	3.09
13. Trash Cans	4.05	3.96	4.06	4.01
14. Drinking Fountains	3.64	3.48	3.67	3.57
15. Advertisement Space	2.14	2.34	2.52	2.28
16. Printed Bus Schedules	4.13	4.16	4.32	4.17
17. Public art	2.99	2.76	3.11	2.91
18. Bicycle racks	3.62	3.45	3.72	3.56
19. Lighting	4.48	4.50	4.46	4.49

When reviewing the outcomes of physical design attributes in further detail, three individual attributes represented significant differences between the sample groups, they

are: #11, restrooms, #15, advertising space, and #17, public art. As demonstrated by a post-hoc Student – Newman – Keuls (SNK) (Floyd, 1998) test, these attributes rated below the average mean score for each of the three sample groups indicating that these factors are less important design factors for bus stop and transit centers in Tucson. When compared to the other sample groups, Group 3 (South Park Avenue) indicated more frequently in support of restroom facilities (#11), and advertisement space (#15). While the advertisement space attribute was not clearly defined to include buses, the assumption for this study is that the respondent was reacting to advertising at bus stops and at transit centers as opposed to advertising on buses.

A significant difference among the three sample groups was also represented in the public art (#17) attribute as well. Group 1 (Mtn. Avenue) and Group 3 (South Park Avenue) demonstrated significantly stronger support for public art (#17) in public transit facilities when compared to Group 2 (Tanque Verde). While not defined in detail, advertisement space (#15) was considered as more important to Group 3, South Park Avenue than the other two sample groups.

When comparing the functional and aesthetic outputs of the survey to responses to question #4, *'do you believe public transit is good for the community,'* there appears to be no significant difference among respondents. Whether the respondents supported public transit or not, the physical design attributes responses remain constant. Likewise, for question #5, *'do you believe that public transit in Tucson is safe,'* no significant

differences in response were apparent. However, of those respondents that believe public transit was cost effective (question #6), aesthetics was important ($m=3.11$, $m=2.67$). For the purposes of this survey, the difference in opinions is considered as statistically significant ($t(158) = 3.57$, $p < .001$) with less than .001% chance that these values are not by chance, and are statistically valuable. There was no significant difference in the survey responses for the functional attributes under study.

Of those respondents who believed public transit is reliable (Question #7, '*do you believe public transit in Tucson is reliable*'), a significant number indicated that aesthetics was important ($m=3.05$, $m= 2.79$) in the design of public transit facilities ($t(566) = 2.20$, $p = .028$). No significant difference between the sample groups was evident for the functional attributes.

Depending on whether the respondent believed culture and the arts *are* important, respondents to Question #8 were more likely to support the aesthetic design attributes of public transit facilities. Those 'yes' respondents had a higher mean rating of 3.11 supporting the aesthetic qualities. The 'no' respondents had a mean rating of 2.26 ($t(633) = 6.28$, $p, .001$).

Finally, for question #9, '*have you seen artwork at a transit facility in Tucson*', there were significant differences between those respondents who supported the 'aesthetic' and

'functional' attributes. For those respondents who indicated they had seen artworks in Tucson, a significant number (mean = 3.18) indicated support for the aesthetic attributes. For those respondents who indicated they had not seen artworks, a mean rating of 2.86 supported aesthetic attributes. Higher mean scores were reported for the functional attributes with respondents indicating a mean of 3.85 having seen artworks, and a mean of 3.66 for those who had not seen public artworks in transit facilities. Whether the respondents had seen artworks or not, based on the findings, both the aesthetic and functional attributes were considered important in the design of public transit facilities.

The next series of questions (Questions #20-#29) were developed to understand the respondents' opinions and attitudes on issues that may affect one's choice to use public transit. The criteria ranged from cleanliness of bus stops and transit centers, well-designed or attractive transit facilities, to inclusion of public art as possible design solutions to increase transit ridership. The series of questions continued to be more specific toward the value of public art in the design of bus stops and transit centers, the effect that artist's designs may have on neighborhood bus stops, and overall community impacts resulting from public art in public transit facilities. The following questions and mean scores were reported for each sample groups, as well as a total mean value for each question.

Responses to Survey Questions #20 -#29

20. *Clean bus stops and transit centers are important to me?*

1:strongly disagree...5: strongly agree

Sample Group	Mean
Group 1:	4.45
Group 2:	4.43
Group 3:	4.53
Total:	4.45

21. *Attractive bus shelters/transit centers would encourage me to ride the bus more often.*

1:strongly disagree...5: strongly agree

Sample Group	Mean
Group 1:	3.26
Group 2:	2.84
Group 3:	3.49
Total:	3.12

22. *Public art can instill community pride.*

1:strongly disagree...5: strongly agree

Sample Group	Mean
Group 1:	3.57
Group 2:	3.33
Group 3:	3.69
Total:	3.48

23. *Public art can make an ordinary place inviting.*

1:strongly disagree...5: strongly agree

Sample Group	Mean
Group 1:	3.65
Group 2:	3.48
Group 3:	3.81
Total:	3.60

24. *The unique qualities of a neighborhood could be reflected through public art.*

1:strongly disagree...5: strongly agree

Sample Group	Mean
Group 1:	3.59
Group 2:	3.38
Group 3:	3.69
Total:	3.51

25. *The Community should be part of the public art process for transit projects.*

1:strongly disagree...5: strongly agree

Sample Group	Mean
Group 1:	3.59
Group 2:	3.35
Group 3:	3.91
Total:	3.53

26. *Public art improvements would help create a better image for transit.*

1:strongly disagree...5: strongly agree

Sample Group	Mean
Group 1:	3.39
Group 2:	3.15
Group 3:	3.51
Total:	3.31

27. *Public art would help reduce graffiti and vandalism at bus stops.*

1:strongly disagree...5: strongly agree

Sample Group	Mean
Group 1:	3.04
Group 2:	2.76
Group 3:	3.58
Total:	3.00

28. *I would use transit more if bus stops had bus shelters at boarding locations.*

1:strongly disagree...5: strongly agree

Sample Group	Mean
Group 1:	2.93
Group 2:	2.87
Group 3:	3.58
Total:	3.00

29. *I would use transit more frequently if public art were at bus stops near my home.*

1:strongly disagree...5: strongly agree

Sample Group	Mean
Group 1:	2.21
Group 2:	2.06
Group 3:	2.55
Total:	2.19

Discussion of Results (Questions #20 - #29)

Overall, in comparison to the other groups, Group 2 (Tanque Verde) sample area consistently had lower mean scores for all questions in this section of the survey. While Group 2 represents a sample group of generally higher income levels and an older age category, the survey results also suggest that Group 2 respondents strongly support public transit as well as culture and arts in the community. With that, Group 2 would be expected to have slightly more conservative attitudes towards the use of public art at public transit facilities. As the overall survey results indicate, this prediction is consistent with the responses for the study.

Respondents from all three groups felt strongly that clean bus stops and transit facilities are very important ($m=4.45$). The results for this phase of the survey also suggests that public art can instill community pride and serve as a creative solution to improving neighborhoods, the community, and even the public transit image. However, public art itself may not be a determining factor for an individual to choose public transit as a mode of transportation. When asked if public art could reflect the unique qualities of a neighborhood, the respondents indicated a positive response ($m=3.51$), but when asked if artworks at bus stops would make a difference in their choice to use transit, a much lower response rate was indicated ($m=2.19$).

Rating of design characteristics for bus stops and transit centers.

Q. 30-35.

Finally, the survey identified six basic design characteristics of bus stops and transit centers that are important factors in developing public transit facilities. The six design characteristics represented each of the last six questions of the survey. Each individual characteristic was rated from most important (1) to least important (5). In addition, each of the three sample groups was evaluated separately to determine if any variances occur between the selected sample groups. The design characteristics included in this study were: #30, Personal safety/security, #31, Function (are your needs served?), #32, Comfort, #33, Aesthetics (is the place attractive?), #34, Identity (is the place unique?), and #35, Access (can you get to the place?). The results of the study are described by ranking in order of preference each characteristic and by calculating the mean score for each characteristic.

Characteristic	Group 1 Mountain Ave.		Group 2 Tanque Verde		Group 3 So. Park Ave.	
	Rating	Mean	Rating	Mean	Rating	Mean
#30. Safety	1	2.44	1	2.52	1	2.27
#31. Function	2	2.51	3	2.65	2	2.47
#32. Comfort	4	2.70	4	2.70	4	2.67
#33. Aesthetics	5	2.95	5	2.83	5	2.75
#34. Identity	6	3.00	6	3.05	6	2.99
#35. Access	3	2.68	2	2.55	3	2.49

The total combined rating of the sample groups identified the following order from most important to least important: safety/security (m=2.45), function (m=2.57), access (2.61), comfort (m=2.70), aesthetics (m=2.86), and identity (3.02).

36. *The survey asked for each respondent's age.*

18-29 30-49 50+

The purpose of this question is to assist in determining the overall demographics of the sample group. For the purposes of this study, this information was not broken down into the individual sample groups selected for this study. The majority of the respondents, 60.7% (402), indicated the 50+-age category. The 30-49 age category had a 32.6% (216) response rate, and only 5.9% (39) indicated the 18-29 age category. Seven responses were missing an answer.

In general, the relatively older population sample group is helpful for this study assuming that this population can provide constructive opinions and perhaps longer-term values and attitudes on the subject. Nevertheless, the moderate age group (30-49) also provided a strong percentage response (32.6%) which suggests a balance of opinions from an age category.

37. *What is your approximate annual household income?*

Under \$10,000 \$10,000-\$20,000 \$20,001-\$30,000
\$40,001-\$50,000 Over \$50,000

Survey participants indicated a broad distribution of annual household income levels with 30.4% (178) of the responses in the Over \$50,000 category. The \$30-40,000 income level had the next highest response rate of 19.6% (115). The \$10-\$20,000 and \$20-

\$30,000 categories had strong responses with (15.5% 91, and 15.7% (92) responses respectively. The \$40-\$50,000 income category had 12.6% ((74) responses, and 6.0% (35) indicated household income levels of less than \$10,000. 84 surveys were missing an answer to this question.

This information reflects the demographic distributions of sample Group 1: Mtn. Avenue, and Group 2: Tanque Verde areas as having proportionately higher incomes than Group 3: South Park Avenue. It was not surprising that those randomly selected participants who responded to this questionnaire were generally of an older population group with higher average income levels. This population group typically has a stronger interest in community issues and is willing to express their opinions in a survey such as this.

Although Group 3 (South Park Avenue) survey response rate was much lower than the other two sample groups, there appears to be an adequate response rate and a diverse representation on income levels and age groups for each sample group surveyed.

Chapter VI

Conclusions

Discussion of Results

The research methods used for this study have combined input from nationwide transit agency representatives and local public perceptions and attitudes on public art in public transit improvement projects. This combined effort has provided two valuable perspectives on the subject. First, the national transit agency survey results were able to provide a practical point of view from agency representatives who may or may not work directly with public artists in capital improvement projects. These results provide needed information on the level of activity in the area of public art in transit, as well as insights on lessons learned, benefits, and how to proceed with future applicable projects. Clearly, based on the results from this phase of the study, there is a need to quantify the true benefits of public art in public transit projects from an operational cost savings perspective. This additional information would be beneficial as a means of reinforcing the positive aspects of public art investments.

Secondly, the results of the research provides an important user group or customer perspective on the issue of public art in public transit investment projects. Ultimately, the customer, public transit users and taxpayers of such services, must be given the opportunity to provide input on the subject. This research has been completed through

an objective process to gain insights from the general public on the needs and opinions of public transit improvement projects in a community. The results from this survey are reliable, and are statistically valid. The information should be used appropriately by public transit agencies for future design decisions of public transit projects.

Adequacy of Methods Used

The research methods used as a part of this study have combined a series of written questionnaires, a telephone survey instrument, and an analysis of case studies of transit facilities that have incorporated public artworks in capital transit facility improvement projects. An initial Phase I survey instrument developed for this study involved case study transit agencies nationwide. This survey instrument included both written survey questionnaires and a follow-up telephone survey to obtain the information necessary for the study purpose. The use of the telephone interview of transit agency staff representatives was considered highly successful in that it is an effective way to gather concise information from practitioners in the field of study. The response rate was adequate for this study primarily due to the effort of locating the most knowledgeable person to provide current information. The simple 'yes/no' format combined with the ability for the respondent to provide additional comments provided a good format to gather the necessary information.

The Phase II Community Public Perception survey instrument involved a written questionnaire using a simple numerical ranking format. The ranking format combined

with a rating comparison of specified independent variables insured an objective analysis. This format was considered as an adequate method to gather public opinions and attitudes for three different sample study areas. Although the overall response rate (2,734 surveys, 670 responses; 24%) for this phase of the study was higher than expected, given the subject matter, a telephone survey or an on-board survey may have yielded a better response rate. However, a telephone survey would have been constrained because of time and cost, and an on-board survey would only capture those opinions of current transit users. A key to this study was to obtain public opinions from a broad range of public, whether transit users or not.

The Phase II written questionnaire method for selecting the survey sample groups was for the most part a thorough and objective process. The key to sample study areas was based on selecting demographically diverse neighborhood areas that may or may not have a strong transit use market, and maintaining relatively equal numbers of surveys for each study area. Also, maintaining a consistent format for the written questionnaire was extremely important to insure the probability of a fair response for each study area.

Although none of the three study areas currently have public art improvements in the vicinity, the South Park Avenue study area will see a major construction improvement project to enhance pedestrian and transit access, streetscape amenities, and public art elements during 1998.

The Mountain Avenue study area has been a focus for alternative modes of transportation improvements for many years. Although Mountain Avenue itself currently does not have transit service, a master plan and streetscape improvements aimed at enhancing pedestrian and transit attributes along the corridor have raised attention in the area since the early 1990's. The Tanque Verde study area was considered as a valuable comparison model in that transit services in the area are primarily commuter and student market groups, with generally higher income levels. The contrast of transit markets, income distributions, and geographic diversity has been useful for the study instrument for this phase of the study.

The original hypothesis for this study suggested that between the sample groups there would be difference in attitudes and perceptions regarding the use of public art in public transit facilities, such as bus stops and transit centers. The assumption maintained that the lower income, transit dependent neighborhoods would be less likely to have strong opinions regarding public funded artworks for their neighborhood transit improvements. Whereas, the higher income neighborhoods, having generally higher educational levels and more transportation choices beyond transit would be more likely to improve the aesthetic quality of their neighborhoods by including public art at area bus stops and transit centers. The statistical analysis comparing responses of study areas validated that Group 3: Tanque Verde area had the strongest overall opinions in support of public art investments.

Additional Research

This study has examined the importance of public art in public transit facilities based on comparing the attitudes and perceptions of three sample groups of transit-supportive areas in metropolitan Tucson. The findings support the idea that public art can improve community pride and enhance a sense of ownership for public transit facilities in a neighborhood area. The survey results also indicate that aesthetic treatments at bus stops and transit facilities, while not as important as other design factors such as safety, function, and comfort, is important. The survey results of this study provide a better sense for the relationship of aesthetics in transit, including public art, and the functional attributes of these facilities. Additional information is necessary to educate public artist, transit users, and potential transit markets as to the purpose of quality design and the functional mechanics of these public spaces.

Additional survey work among public artists and other design professionals, as well as transit agency personnel who are engaged in the planning and design of public transit facilities, may be helpful to maintain an open dialogue on design issues, long term maintenance and operations, and functional aspects of transit facilities. Further discussions between transit agencies, public artists, and transit planners should be considered if transit marketing strategies begin to consider public art investments in greater detail. Transit master plans focusing on aesthetics and function for arts investments may help identify target locations such as transit corridors and destinations

of high visibility. Schools of all levels, public parks, and special districts are conducive to public art and public transit enhancements. For example, feasibility studies, including input from school districts and students, may be helpful as local transit agencies begin to further consider public art investments.

Finally, this research study did not include a quantitative analysis designed to specifically measure long-term maintenance and operational cost savings attributed to public art investments in transit projects. However, as noted in the study results, the general response from the three survey groups indicated that public artworks could contribute to measurable savings in annual maintenance costs based on a reduction in vandalism and graffiti. In addition, the study concludes that there is a perception that public artworks in neighborhood transit facilities could instill community pride and a sense of ownership. This newly found sense of ownership could result in increased transit ridership. This documented information of public attitudes and perceptions should be explored further by studying transit ridership counts, conducting individual interviews at specific locations with public artworks, and analyzing annual maintenance records and comparing expenditures to transit locations without public art enhancements. This additional research would be helpful to quantifiably validate public perceptions documented in this research effort and assist in future programming or public artwork investments in the transit system.

Recommendations

Based on the findings of the public perception and attitude research survey and current local and national trends of public art in public transit agencies the following recommendations are categorized into three areas of concentration. They are;

- 1. Develop further analysis of public art investments for public transit facilities.**
- 2. Develop an Arts In Transit Master Plan program for the Sun Tran transit system.**
- 3. Develop a site design manual for public artists.**

Recommendation No 1:

Develop further analysis of public art investments for public transit facilities.

Further quantifiable analysis of the benefit / cost aspects of public art investments are needed for future decision-making efforts concerning transit capital improvement projects. While many future capital transit projects may be appropriate for a percent for public art set aside, not all publicly funded capital improvement projects warrant the use of public artists or artworks. Transit agencies should develop policy guidelines for determining appropriate uses and opportunities for the inclusion of public art investments. Policy guidelines could include criteria based on projects with high public contact, acceptable benefit / costs ratios, and budget parameters as possible considerations.

Recommendation No. 2:**Develop an Arts In Transit Master Plan Program for the Sun Tran transit system.**

The City Department of Transportation, in conjunction with the Sun Tran transit agency and the Tucson Pima Arts Council, should develop an Arts in Transit Master Plan to identify appropriate opportunities for public art in public transit projects. Projects such as transit corridors, bus shelter programs, and transit centers maintain high transit use and high public contact. These facilities serve activity destinations such as schools, universities, community colleges, public libraries, museums, parks, and other public locations that are excellent opportunities for public artist's involvement.

The Arts in Transit Master Plan could serve to identify opportunities and incentives for private sector development projects that are transit supportive and are appropriate developments for public art in area transit facilities. The Master Plan could outline methods for early programming, cost sharing, and procedures for selecting artists in the planning and design phases of a project.

Recommendation No. 3:**Develop a site design manual for public artists.**

In addition to providing accessible and cost effective transit services, transit agencies and public works departments are continually focused on pragmatic issues, such as operation and maintenance costs, liability considerations, and public relations and image. As

public artists may provide unique opportunities to develop a sense of ownership in local transit facilities, public artists are not always fully aware of design standards defined by such regulations as the Americans With Disabilities Act (ADA) of 1991 or other practical design constraints which affect transit services. For instance, in Tucson, Arizona, a prime consideration for bus stops is adequate shelter with shade. However, a bus shelter, created to function for shade, may inadvertently cause restricted visibility for the transit operators (bus drivers) and patrons, or could create enclosures that collect trash or worse, provide a false sense of security for users if un-welcomed individuals take comfort in its confines. While these design issues seem to be basic fundamental aspects of a public transit facility to the agency staff who deal with daily issues, artists are often unfamiliar with these critical issues.

A comprehensive public art design guideline manual, outlining design criteria for bus shelter and transit center designs, could be a useful tool for public artists who are interested in submitting proposals for future transit improvement projects. If public artists' opportunities continue to be included in public transit projects, both artists and transit agencies will benefit if design parameters, procurement procedures, and contract obligations are clearly understood by all individuals involved in the artist contract.

Finally, public artists can be involved in the design development process of public transit facilities in a number of ways. The proposed Art In Transit Master Plan should clearly

define how artists can be effective in the design development process. The Master Plan would outline three distinctly difference ways for artists and artworks to make a positive impact in the aesthetics of public transit. The three strategies for public artists involvement include; 1) artist initiated projects, 2) artists as collaborative design team members, and 3) artists selected for the design and fabrication of discrete artworks. Each of these strategies offers artists to explore opportunities that range from inexpensive, simple art projects (i.e. murals at bus shelters, poetry on buses) to more extensive public artist planning and development projects in transit capital programs. These various options should be defined through the Arts In Transit Master Plan and clearly advocated to enhance the opportunities and cost effectiveness of future public art in transit projects.

APPENDIX A

**Metropolitan Tucson Public Art in Transportation Projects
1985-1998**

Metropolitan Tucson Public Art in Transportation Projects 1985-1998

No.	Year	Artist	Project Name	Project Scope	Agency	Artist Fee
01	1992	Asay, Roger	Mountain Ave Phase I	Design/ Sculpture	COT	\$24,000
02	1997	Cooper, Eric	Rillito River Bridge	Design/ Sculpture	Pima County	\$45,000
03	1998	Cooper, Eric	Downtown Shuttle Stop	Design/ Sculpture	COT	\$15,000
04		Dolan, Pat	Canada De Oro Linear Park	Design	COT	\$16,000
05	*	Donovan, Simon	Broadway Blvd. Bridge	Design/ Sculpture	COT	\$24,000
06		Elliot, David	Downtown Pedestrian	Design/ Sculpture	COT	\$25,000
07	*	Etc (P. Edwards/C. Tanz)	1 st Ave Road Improvement	Design	Pima County	\$ 5,000
08		Etc (P. Edwards/C. Tanz)	Mountain Ave. Phase II	Design	COT	\$26,000
09	1992	Etc (P. Edwards/C. Tanz)	Northwest Transit Center	Design	COT	\$ 2,500
10	1994	Etc (P. Edwards/ C. Tanz/S. Holman)	Sun Circle Rillito Park	Sculpture	Pima County	\$15,000
11	1994	Etc (P. Edwards/C. Tanz)	Nanko Ma: s Du'ag Son (Many Colored Mountains)	Sculpture	COT	\$55,950
12	1997	Etc (P. Edwards/C. Tanz)	Sand Trout	Sculpture	COT	\$27,500
13	1992	Gamble, Susan	Santa Cruz River Park	Sculpture	Pima County	\$18,000
14	1993	Gamble, Susan/Oplin, Margaret	Downtown Land Use/ Circulation Study	Planning/ Design	COT	\$5,100
15	1997	Grygutis, Barbara	Santa Cruz River Park Plazas	Sculpture	COT	\$31,500
16	1992	Haworth, Linda	Arroyo Chico Bicycle Loop	Planning/ Design	COT	\$5,000
17	1993	Haworth, Linda/ Lovegrove, John/ Wallac, Les	Santa Cruz River Park	Sculpture/ Mosaic	Pima County	\$30,000
18	1996	Haworth, Linda	Downtown Shuttle Stop	Planning/ Design	COT	\$14,900
19	1996	Haworth, Linda	Downtown Pedestrian Implementation Plan	Planning/ Design	COT	\$12,600
20		Haworth, Linda/ Valenzuela, Carlos	I-10 Pedestrian Underpass	Mosaic	ADOT	\$59,000

No.	Year	Artist	Project Name	Project Scope	Agency	Artist Fee
21	1997	Keiser, To-Ree-Nee/ Haworth, Linda	South Park Improvement Project	Planning/ Design	COT	\$24,000
22		Keiser, To-Ree-Nee	South Park Improvement Project	Art Center Mosaic Sculpture	COT	\$22,500
23	1992	Mackie, Jack	Tanque Verde Linear Park	Design	Pima County	\$12,000
24	1988	Moreno, Martin	Fourth Ave. Underpass	Mural	COT	\$10,000
25	1990	Morgan, Patricia Carr	River Rd. Artwork	Design/ Mosaics	Pima County	\$6,000
26	1998	Osborn, Kevin	Downtown Shuttle Stop	Sculpture	COT	\$5,000
27	*	Osborn, Kevin/ Peters, Melody	Fourth Ave. Underpass	Design/ Sculpture	COT	\$1,000
28		Peters, Melody	Pantano Linear Park	Design/ Artwork	Pima County	
29	1990	Peters, Melody	Kolb Rd. Extension	Design	COT	\$4,000
30	1992	Peters, Melody	Ronstadt Transit Center	Mosaic tile	COT	\$21,000
31	*	RLV Arts	Congress St. Gateway	Sculpture	ADOT	\$250,000
32	1994	Rush, Chris	Tohono Tada:t Transit Center	Graphics/ Banners	COT	\$8,000
33	1992	Scuri, Vicki	Santa Cruz Linear Park	Design/ Sculpture	Pima County	\$12,000
34	1998	Stenning, Lauri	Downtown Shuttle Stop	Sculpture	COT	\$15,000
35	1998	Thompson, Bob	Downtown Shuttle Stop	Sculpture	COT	\$15,000
36	1998	Tyler, Joe/Girson, Scott	Downtown Shuttle Stop	Sculpture	COT	\$15,000
37	1994	Vint, Bob/Wilhelm, Dan/Wilhelm, Mike/Pettit, Elizabeth	Tohono Tada:t Transit Center	Sculpture	COT	\$40,000
38		Wipple, Bill	Pantano Linear Park	Design/ Sculpture	Pima County	\$39,000

- In progress
- Source: Tucson Pima Arts Council

APPENDIX B

Art In Transit Survey
Livable Communities Initiative Survey
Regional Communities Survey

Appendix B: Art In Transit Survey

'Art in Transit' Public Art and Landscape Survey

The Federal Transit Administration (FTA) guidance as outlined in FTA Circular 9400.1A states:

"Good design and art can improve the appearance and safety of a facility, give vibrancy to its public spaces, and make patrons feel welcome."

In an effort to validate this statement, we are seeking your input regarding the link between investment costs of landscape and public art amenities (in your particular Art in Transit project) and the potential for increased transit ridership.

This survey is being conducted by the City of Tucson, Department of Transportation. Your response is appreciated. Please complete and return the survey form in the enclosed, stamped envelope. The results will be made available to all Art in Transit coordinators.

SECTION I - Public Art

1. Do you consider public art separate from other amenities? Yes No

If you answered 'yes' please answer the following questions, otherwise skip to the Section II.

2. If yes, what percent of the project budget has been established for public art? %

2a. What is the funding source for your public art budget in this project?

3. Does the public art component include neighborhood or community involvement? Yes No

3a. Is neighborhood or community involvement a component of

-the selection process for the artist(s)? Yes No

-the design development of the art? Yes No

-the creation or installation of the artwork? Yes No

3b. Please provide any additional comments on the extent of community involvement in the public art segment of the project: _____

4. Is any follow-up research intended (or being conducted) to determine cost effectiveness of public art investments? Yes No

5. If yes, what measures will you (have you) employed to track cost effectiveness of public art investments? Please describe these 'measures.' _____

SECTION II - Landscape and Other Amenities

Landscape amenities include but are not limited to hardscape improvements, irrigation, planting, seatwalls, benches, signage, pedestrian lighting, etc.

1. What approximate percentage of your Art in Transit project budget has been established for landscape or other amenities (excluding public art if you answered the above questions)? %

2. Does the landscape component include neighborhood or community involvement? Yes No

Appendix B: Art In Transit Survey

2a. Is neighborhood or community involvement a component of

- the selection process for designers? Yes No
- the design development of landscape amenities? Yes No
- the creation or installation of the amenities? Yes No

2b Please provide any additional comments on the extent of community involvement in the project:

3. Were public safety specialists involved in the design phase of the project in order to reduce or minimize criminal activity? Yes No

4. If yes, who were these individuals or organizations?

SECTION III - Transit Ridership (or Alternative Modes)

1. Does your Art in Transit project involve rail or bus infrastructure improvements, or both?

Yes No

2. Have you taken steps to document changes in transit ridership as a result of your Art in Transit project? Yes No

3. If yes, are you monitoring changes by mode (transit, bicycle, pedestrian)?

Yes No

3a. If yes, how have you (or how will you) measured these changes?

4. Can any increase in transit ridership be attributed to investments in public art or landscape improvements? Yes No

4a. Can this be validated? Yes No

Thank you for your participation. If you have any questions about the survey or the study do not hesitate to call Keith Walzak, Alternative Modes Coordinator, City of Tucson Department of Transportation at (520) 791-4372. Please indicate if you are interested in receiving final results of this survey.

Appendix B: Livable Communities Initiative Survey

Livable Communities Initiative Public Art and Landscape Survey

The Federal Transit Administration (FTA) has awarded funding to 16 projects under the Livable Communities Initiative (LCI). The purpose of this survey is to obtain your input regarding the link between investment costs of landscape and public art amenities (in your particular LCI project) and the potential for increased transit ridership.

This survey is being conducted by the City of Tucson, Department of Transportation. Your response is appreciated. Please complete and return the survey form in the enclosed, stamped envelope. The results will be made available to all LCI coordinators upon request.

SECTION I - Public Art

1. Do you consider public art separate from other project site amenities? Yes No

If you answered 'yes' please answer the following questions, otherwise skip to the Section II.

2. Is Public art an element in the LCI project in your community? Yes No

3. If yes, what estimated percentage of the project budget has been established for public art? %

3a. What is the funding source for your public art budget in this project?

4. Does the public art component include neighborhood or community involvement? Yes No

4a. If yes, is neighborhood or community involvement a component of

-the selection process for the artist(s)? Yes No

-the design development of the art? Yes No

-the creation or installation of the artwork? Yes No

4b. Please provide any additional comments on the extent of community involvement in the public art segment of your project:

5. Is any follow-up research intended (or currently being conducted) to determine cost effectiveness of public art investments? Yes No

6. If yes, what measures will you (have you) employed to track cost effectiveness of public art investments? Please describe the 'measures.'

SECTION II - Landscape and Other Amenities

Landscape amenities include but are not limited to hardscape improvements, irrigation, planting, seatwalls, benches, signage, pedestrian lighting, etc.

1. What approximate percentage of your LCI project budget has been established for landscape or other amenities (excluding public art if you answered the above questions)? %

Appendix B: Livable Communities Initiative Survey

2. Does the landscape component include neighborhood or community involvement? Yes No

2a. Is neighborhood or community involvement a component of

-the selection process for the designers? Yes No

-the design development of landscape amenities? Yes No

-the construction or implementation of the amenities? Yes No

2b. Please provide any additional comments on the extent of community involvement in your project: _____

3. Were public safety specialists involved in the design phase of the project in order to reduce or minimize criminal activity? Yes No

4. If yes, who were these individuals or organizations?

SECTION III - Transit Ridership (or Alternative Modes)

1. Does your LCI project involve rail or bus infrastructure improvements, or both? _____

2. Have you taken steps to document changes in transit ridership as a result of your LCI project? Yes No

3. If yes, are you monitoring changes by mode (transit, bicycle, pedestrian)? Yes No

3a. If yes, how have you (or how will you) measured these changes?

4. Can any increase in transit ridership be attributed to investments in public art or landscape improvements? Yes No

4a. Can this be validated? Yes No

Thank you for your participation. If you have any questions about the survey or the study do not hesitate to call Keith Walzak, Alternative Modes Coordinator, City of Tucson Department of Transportation at (520) 791-4372. Please indicate if you are interested in receiving final results of this survey.

Appendix B: Regional Communities Survey

Public Art and Landscape Survey

The Federal Transit Administration (FTA) guidance as outlined in FTA Circular 9400.1A states:

"Good design and art can improve the appearance and safety of a facility, give vibrancy to its public spaces, and make patrons feel welcome."

In an effort to validate this statement we are seeking your input regarding the link between investment costs of landscape and public art amenities (in your particular Art in Transit project) and the potential for increased transit ridership. If there is a transit project in your community that incorporates public art and/or landscape amenities please take a few minutes to fill out the following survey.

This survey is being conducted by the City of Tucson, Department of Transportation. Your response is appreciated. Please complete and return the survey form in the enclosed, stamped envelope. The results will be made available to all transportation officials who participate.

SECTION I - Public Art

1. Do you consider public art separate from other amenities?

_____ Yes _____ No

If you answered 'yes' please answer the following questions, otherwise skip to Section II.

2. Is public art an element of the project in your community?

_____ Yes _____ No

3. If yes, what percent of the project budget has been established for public art?

_____ %

3a. What is the funding source for your public art budget in this project?

4. Does the public art component include neighborhood or community involvement?

_____ Yes _____ No

4a. Is neighborhood or community involvement a component of

-the selection of the artist(s)?

_____ Yes _____ No

-the design of the art?

_____ Yes _____ No

-the creation of the artwork?

_____ Yes _____ No

4b. Please provide any additional comments on the extent of community involvement in the public art segment of the project: _____

5. Is any follow-up research intended (or currently being conducted) to determine cost effectiveness of public art investments?

_____ Yes _____ No

6. If yes, what measures will you (or have you) employed to track cost effectiveness of public art investments? Please describe these 'measures.' _____

SECTION II - Landscape and Other Amenities

Landscape amenities include but are not limited to hardscape improvements, irrigation, planting, seatwalls, benches, signage, pedestrian lighting, etc.

1. What approximate percentage of your project budget has been established for landscape or other amenities (excluding public art if you answered the above questions)?

_____ %

2. Does the landscape component include neighborhood or community involvement?

_____ Yes _____ No

Appendix B: Regional Communities Survey

2a. Is neighborhood or community involvement a component of

- the selection process of designers? Yes No
- the design development of landscape amenities? Yes No
- the creation or installation of the amenities? Yes No

2b. Please provide any additional comments on the extent of community involvement in your project:

3. Were public safety specialists involved in the design phase of the project in order to reduce or minimize criminal activity? Yes No

4. If yes, who were these individuals or organizations?

SECTION III - Transit Ridership (or Alternative Modes)

1. Does your transit project involve rail or bus infrastructure improvements, or both?

2. Have you taken steps to document changes in transit ridership as a result of your project?

Yes No

3. If yes, are you monitoring changes by mode (transit, bicycle, pedestrian)?

Yes No

3a. If yes, how have you (or how will you) measured these changes?

4. Can any increase in transit ridership be attributed to investments in public art or landscape improvements? Yes No

4a. Can this be validated?

Yes No

Thank you for your participation. If you have any questions about the survey or the study do not hesitate to call Keith Walzak, Alternative Modes Coordinator, City of Tucson Department of Transportation at (520) 791-4372. Please indicate if you are interested in receiving final results of this survey.

APPENDIX C

Public Art In Transit Survey

Appendix C: Public Art In Transit Survey



P.O. BOX 27210
TUCSON, AZ 85726-7210

DEPARTMENT OF TRANSPORTATION
PLANNING DIVISION
PHONE: (520) 791-4372
FAX: (520) 791-4608

February 4, 1998

Dear Neighborhood Resident:

The City of Tucson Department of Transportation is conducting a survey on 'public art and public transit'. We are interested in your opinions on the use of public art on buses, at bus stops, and at transit centers in Tucson.

This survey is on a limited budget, so each returned questionnaire is very valuable. The data obtained through this research will be used for future planning considerations. **The survey should only take from 4 to 9 minutes of your time. You do not have to be a public transit user to assist in this study.** Your responses are voluntary and will remain anonymous.

The attached questionnaire includes a postage-paid, self-addressed label. Please answer the questions, be sure to fold and seal the form (so the return address is on the outside), and **send back before February 27, 1998**. That's it!

Thank you for considering this request. If you wish a 'free' bus pass for completing this questionnaire, please be sure to include your name and return address on your survey form. Again, thanks for your help.

Sincerely,

Keith Walzak
Alternative Modes Coordinator

P.S. We really would appreciate all completed questionnaires be returned by February 27, 1998. If you have any questions about this survey, please contact me at 791-4372.

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Public Art in Transit Survey

How do you feel about the idea of public art at public transit facilities? With your help, we can improve public transit here in Tucson. Currently, the City can use up to 2% of a project budget for public art. As an example, in 1992, the downtown Ronstadt Transit Center included handmade ceramic tiles as a part of the project. This year, a public transit project on South Park Avenue will include seven bus shelters created with mosaic tile works. The following definitions may help you answer these questions;

Transit facility: A bus stop, bus shelter, or major transit center (where bus riders transfer to other buses).

Public art: Artwork purchased with public funds; such as, tiled or painted murals, sculptures, benches, water fountains, or an entire bus shelter created by an artist.

Have you used public transit in Tucson?

Yes No

If yes, how often do you use the bus system?

- Daily
- 2-3 Times a Week
- Once a week
- Only once or twice
- Occasionally

Do you use public transit by choice, or is transit your only way to get around town?

By choice Only way Other

	Yes	No
Do you believe public transit is good for our community?	<input type="checkbox"/>	<input type="checkbox"/>
Do you believe public transit in Tucson is safe?	<input type="checkbox"/>	<input type="checkbox"/>
Do you believe public transit in Tucson is cost effective?	<input type="checkbox"/>	<input type="checkbox"/>
Do you believe public transit in Tucson is reliable?	<input type="checkbox"/>	<input type="checkbox"/>
Do you believe culture and arts are important in Tucson?	<input type="checkbox"/>	<input type="checkbox"/>
Have you seen artwork at a transit facility in Tucson?	<input type="checkbox"/>	<input type="checkbox"/>

Rate each feature of transit facilities by level of importance.

(1: least important, ...5: most important)

Shade/shelter	1	2	3	4	5
Restrooms	1	2	3	4	5
Landscaping	1	2	3	4	5
Trash cans	1	2	3	4	5
Drinking fountains	1	2	3	4	5
Advertisement space	1	2	3	4	5
Printed bus schedules	1	2	3	4	5
Public art	1	2	3	4	5
Bicycle racks	1	2	3	4	5
Lighting (nt bus shelter)	1	2	3	4	5

Rate each of the following from 1-5.

(1: strongly disagree, ...5: strongly agree)

Clean bus stops and transit centers are important to me.	1	2	3	4	5
Attractive bus shelters/transit centers would encourage me to ride the bus more often.	1	2	3	4	5
Public art can instill community pride.	1	2	3	4	5
Public art can make an ordinary place inviting.	1	2	3	4	5
The unique qualities of a neighborhood could be reflected through public art.	1	2	3	4	5
The Community should be part of the public art process for transit projects.	1	2	3	4	5

Public art improvements would help create a better image for transit.

1 2 3 4 5

Public art would help reduce graffiti and vandalism at bus stops.

1 2 3 4 5

I would use transit more if bus stops had bus shelters at boarding locations.

1 2 3 4 5

I would use transit more frequently if public art were at bus stops near my home.

1 2 3 4 5

Rate each of the following characteristics in order of importance (1-5) for a bus stop or transit center.

(1: most important, ...5: least important)

Personal safety/security	1	2	3	4	5
Function (are your needs served?)	1	2	3	4	5
Comfort	1	2	3	4	5
Aesthetics (is the place attractive?)	1	2	3	4	5
Identity (is the place unique?)	1	2	3	4	5
Access (can you get to the place?)	1	2	3	4	5

What is your age? 18-29 30-49 50+

What is your approximate annual household income?

- under \$10,000
- \$10,000-\$20,000
- \$20,001-\$30,000
- \$30,001-\$40,000
- \$40,001-\$50,000
- over \$50,001

Comments: _____

Thanks for your help! Please fold and return this survey before **February 27, 1998**. Be sure the return address is on the outside. No return postage is necessary.

PUBLIC ART IN TRANSIT SURVEY

City of Tucson
Department of Transportation
201 N. Stone Avenue, 6th Fl.
Tucson, Arizona 85701
ATTN: Keith Waizak

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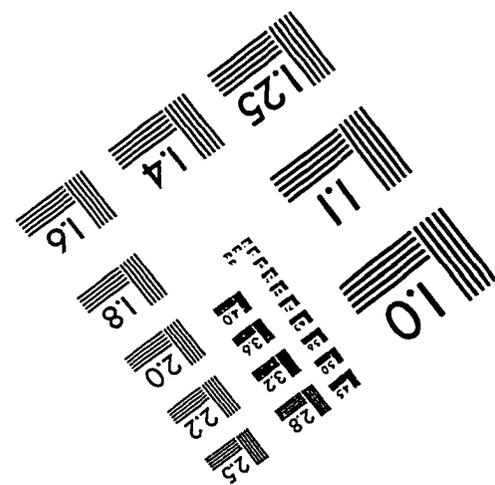
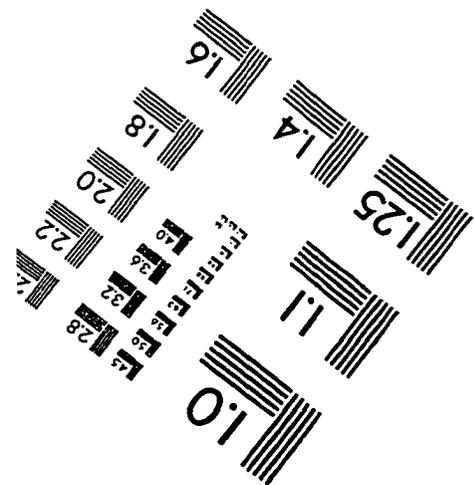
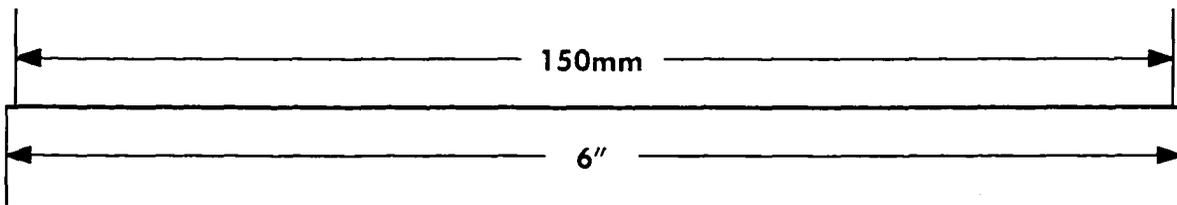
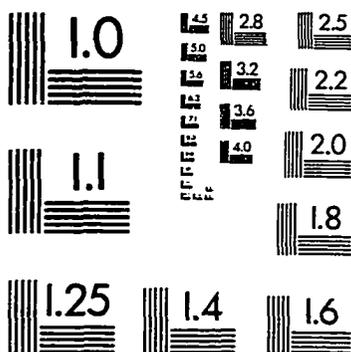
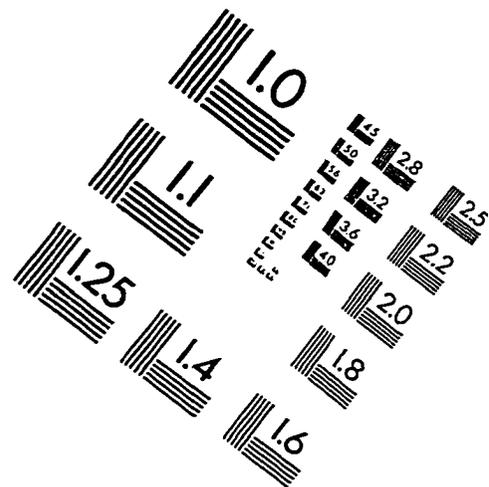
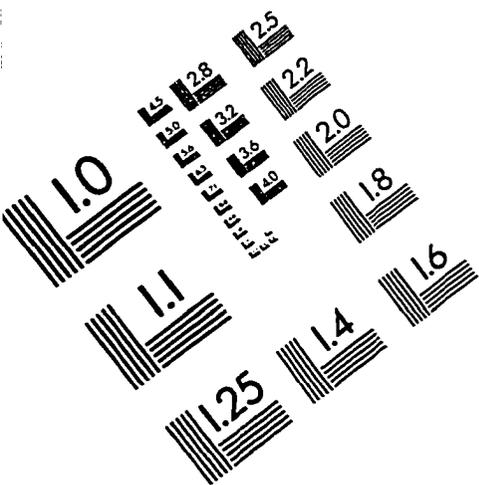
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IMAGE EVALUATION TEST TARGET (QA-3)



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